

772

SEVERAL  
Useful and Necessary  
**TABLES,**

FOR THE  
Gauging of CASKS;

For the  
meas-  
uring of

{ BOARDS,  
TIMBER truly squared,  
TIMBER not truly squared,  
Round-TIMBER:

All which, are more Perfect and  
Exact than any formerly extant.

CALCULATED  
By **JOHN BEILBY, Esq;**

To which is Added,  
*Mr. Wingate's Table of Accompts,*  
Very useful for all sorts of Tradesmen.

**L O N D O N,**  
Printed by *J. H.* for *L. Meredith* at  
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## ( 1 )

<i>Diam.</i>	<i>Head</i>	<i>Bung</i>
01. 0	o. 0009	o. 0018
01. 1	o. 0011	o. 0022
01. 2	o. 0013	o. 0026
01. 3	o. 0015	o. 0030
01. 4	o. 0018	o. 0036
01. 5	o. 0020	o. 0040
01. 6	o. 0023	o. 0046
01. 7	c. 0026	o. 0052
01. 8	c. 0030	o. 0060
01. 9	c. 0033	c. 0066
02. 0	c. 0037	o. 0074
02. 1	c. 0041	o. 0082
02. 2	o. 0045	o. 0090
02. 3	o. 0049	o. 0098
02. 4	o. 0053	o. 0106
02. 5	o. 0058	o. 0116
02. 6	o. 0063	o. 0126
02. 7	c. 0068	c. 0136
02. 8	o. 0073	o. 0146
02. 9	o. 0078	o. 0156
03. 0	o. 0083	c. 0166
03. 1	o. 0089	o. 0178
03. 2	o. 0095	c. 0190
03. 3	o. 0101	o. 0202
03. 4	o. 0107	o. 0214

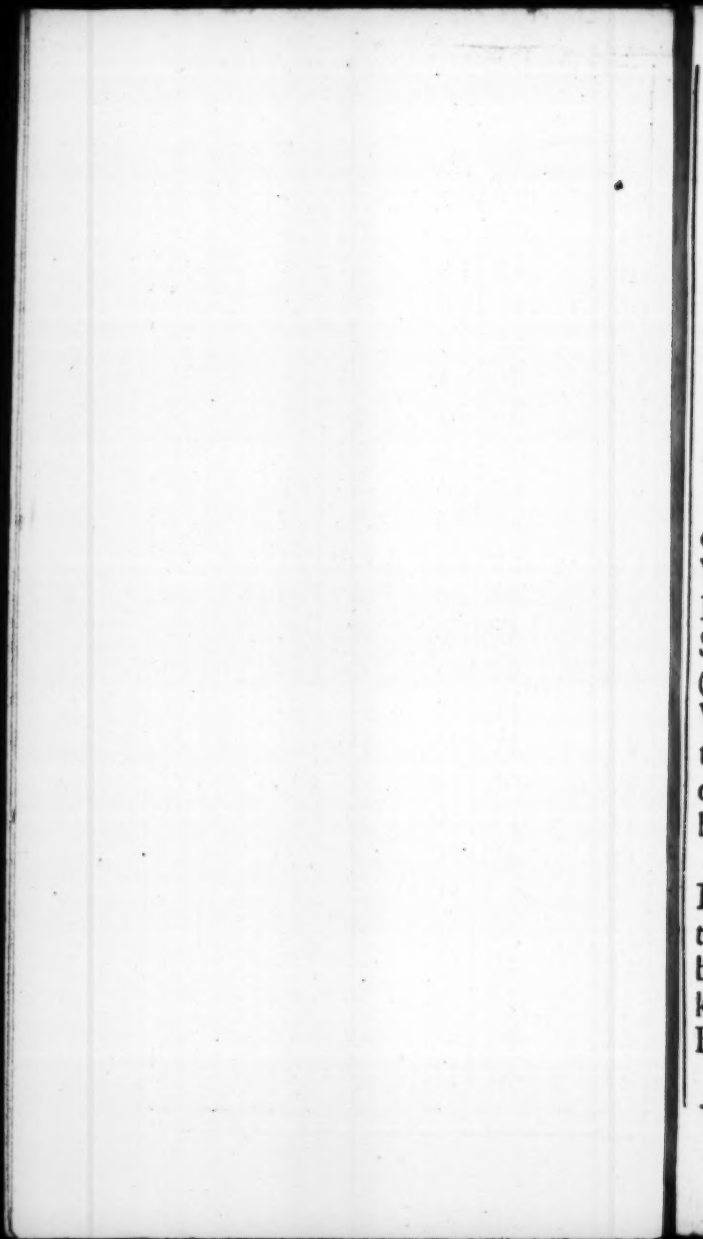
†

( 2 )

Diam		Head		Bang	
03.	5	o.	0113	o.	0226
03.	6	o.	0120	o.	0240
03.	7	o.	0127	o.	0254
03.	8	o.	0134	o.	0268
03.	9	o.	0141	o.	0282
04.	0	o.	0148	o.	0296
04.	1	o.	0156	o.	0312
04.	2	o.	0163	o.	0326
04.	3	o.	0171	o.	0342
04.	4	o.	0179	o.	0358
04.	5	o.	0188	o.	0376
04.	6	o.	0196	o.	0394
04.	7	o.	0205	o.	0410
04.	8	o.	0214	o.	0428
04.	9	o.	0223	o.	0446
05.	0	o.	0232	o.	0464
05.	1	o.	0241	o.	0482
05.	2	o.	0251	o.	0502
05.	3	o.	0261	o.	0522
05.	4	o.	0271	o.	0542
05.	5	o.	0281	o.	0562
05.	6	o.	0291	o.	0582
05.	7	o.	0301	o.	0602
05.	8	o.	0312	o.	0624
05.	9	o.	0323	o.	0646

## ERRATA.

**P**age 5. *lin. 22. for 6 Inches and their  
Decimal Parts, read 1 Inch and its  
Decimal Parts. Page 60. lin. 13. for a  
Diameter of six Inches, read a Diameter  
of one Inch.*



T H E

First Cask-Gauging

T A B L E,

**T**H E ensuing Table is calculated for the speedy finding out the Contents (in Ale and Wine Gallons, and their Decimal Parts) of all such Vessels as are Segments of Spheroids; which (tho' chiefly designed for the Wine-Merchant, the Vintner, and the Gauger) is useful to all sorts of People understanding Numbers.

This Table sheweth the vulgar Error in the common Gauger, by taking the Content of a Cask barely by the Diagonal Line, without taking Notice of the Diameters of the Bung and Head of the Vessel; for

B                      here

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here you see the same Diagonal may have different Diameters, and therefore different Contents.

The Calculation here is tedious and perplexed, but the Use of the Table is easy and obvious to the meanest Capacity.

In the Calculation there is allowed 282 cubical Inches to an Ale-Gallon, and 231 to a Wine-Gallon, which are now (I suppose) the Standing Measures in the Exchequer: According to these Proportions the Table is exact, and (by being so) of general Use; therefore it is recommended to the World by a Well-wisher of his Countrey.

*The Description of the Table.*

This Table consists of Five Columns; the first is the Diagonal Column, marked *D*. By the Diagonal is meant that Slope-line taken from the Middle of the Bung-hole

Bung-hole to the Bottom of the Head of the Cask.

The second Column shews the Diameters at the Bung, marked *D.B.*

The third Column shews the Diameters of the Head, marked *D.H.*

The fourth Column sheweth the Contents in Ale-Gallons, and their Decimal Parts, marked *A.G.*

The fifth Column shews the Contents in Wine-Gallons and their Decimal Parts, marked *W. G.*

*The Use of the Table.*

First you are to furnish your self with a Rule about four Foot long, and sloped at the End (and tipp'd with Brass) that it may go down from the Middle of the Bung-hole, close to the Bottom of the Head.

The Rule must be divided into Inches and Decimal Parts; and it would be convenient to have it jointed at every Foot, to make it more portable.

With this Rule take the Diagonal Line, as aforesaid, and observe the Inches. Take likewise the Diameters at the Bung and Head, and observe their several Inches. Then search the Table for the several Inches answering to the Diagonal and the two Diameters, and in the fourth Column you have the Content in Ale-Gallons and Parts; and in the fifth Column opposite, you have the Content in Wine-Gallons and Parts.

*As for Example.*

I find the Diagonal to be 36 Inches, the Diameter at the Bung to be 31, the Diameter at the Head to be 27; in the fourth



fourth Opposite Column you have the Content in Ale Gallons 105.03; in the last opposite Column you have the Content in Wine-Gallons 128.22.

Here you may observe that the Diagonal and Diameters are Whole Numbers, without any Decimal Parts; yet it often happens, upon your Mensuration, that all three come out in Inches and Decimal Parts, sometimes two of them in that manner, sometimes but one of them in that manner.

Therefore, to answer all these Cases, I have added a Second Gauging-Table more comprehensive and universal, which shall reach all Inches and their Decimal Parts, from a Diameter of 6 Inches and their Decimal Parts, to a Diameter of 60.

This first Table is subject to these following Determinations.

B 3

First,

First, When the Diagonal is 12 Inches, it must not exceed the Diameter at the Bung above 2 Inches, the Diameter increasing gradually till it comes to be equal to the Diagonal.

When the Diagonal is 18 Inches, it must not exceed the Diameter at the Bung above 3 Inches, the Diameter increasing as aforesaid.

When the Diagonal is 24 Inches, it must not exceed the Diameter at the Bung above 4 Inches, the Diameter increasing as above-said.

When the Diagonal is 30 Inches, it must not exceed the Diameter at the Bung above 5 Inches, the Diameter still increasing as aforesaid.

When the Diagonal is 36 Inches, it must not exceed the Diameter at the Bung above 6 Inches, the Diameter increasing as aforesaid.

When

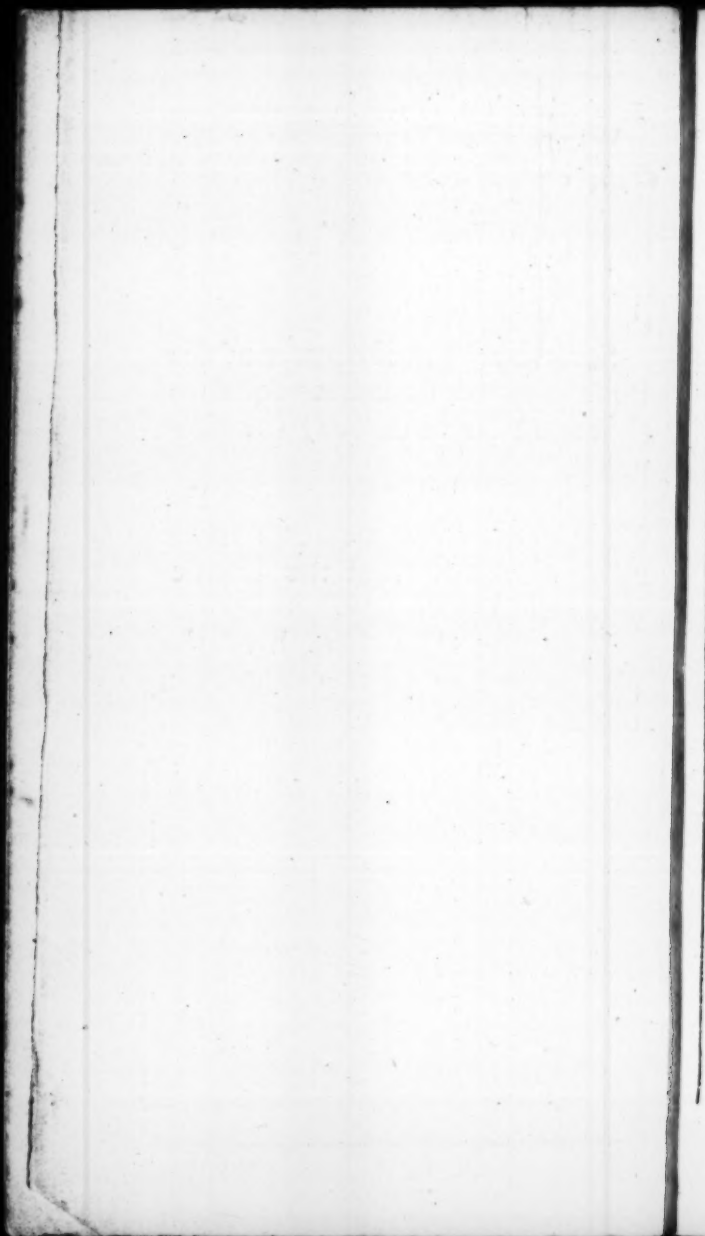
When the Diagonal is 40 Inches, &c. it must not exceed the Diameter at the Bung above 7 Inches, the Diameter always increasing till it comes to be equal to the Diagonal.

Secondly, The Diameter at the Bung may be sometimes equal to (but must never exceed) the Diagonal.

Thirdly, The Diameter at the Head must never decrease above about one third from the Diameter at the Bung.

Fourthly, The Length of the Cask must be always greater than the Diagonal.

THE



T H E  
First Cask-Gauging  
T A B L E.

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts.</u>	<u>WG</u>	<u>pts.</u>
12	10	9	03.	82	04.	67
12	10	8	03.	91	04.	77
12	10	7	03.	92	04.	78
12	10	6	04.	77	05.	26
12	11	9	03.	97	04.	85
12	11	8	04.	16	05.	08
12	11	7	04.	31	05.	26
12	12	8	04.	33	05.	29
13	11	10	04.	86	05.	94
13	11	9	04.	97	06.	07
13	11	8	05.	07	06.	19
13	11	7	05.	07	06.	19
13	12	10	05.	00	06.	09
13	12	9	05.	25	06.	41
13	12	8	05.	43	06.	67
13	13	9	05.	38	06.	62
13	13	8	05.	72	06.	98

<i>D</i>	<i>DB</i>	<i>DH</i>	<i>AG</i>	<i>pts</i>	<i>WG</i>	<i>pts</i>
14	12	11	06.	36	07.	40
14	12	10	06.	24	07.	61
14	12	9	06.	34	07.	74
14	12	8	06.	49	07.	82
14	13	11	06.	24	07.	62
14	13	10	06.	49	07.	92
14	13	9	06.	73	08.	22
14	13	8	06.	91	08	44
14	14	10	06.	59	08.	04
14	14	9	07.	01	08.	56
15	13	12	07.	42	09.	06
15	13	11	07.	67	09.	36
15	13	10	07.	82	09.	56
15	13	9	07.	91	09.	65
15	13	8	07.	99	09.	76
15	14	11	07.	95	09.	71
15	14	10	08.	22	10.	04
15	14	9	08.	46	10.	32
15	15	10	08.	47	10.	34
15	15	9	08.	87	10.	83
16	14	13	08.	95	10.	92
16	14	12	09.	28	11.	33
16	14	11	09.	51	11.	61
16	14	10	09.	67	11.	80
16	14	9	09.	77	11.	92

## ( 11 )

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
16	15	12	09.	47	11.	56
16	15	11	09.	89	12.	07
16	15	10	10.	20	12.	45
16	16	11	10.	09	12.	32
16	16	10	10.	60	12.	19
17	15	14	10.	64	13.	00
17	15	13	11.	08	13.	53
17	15	12	11.	39	13.	91
17	15	11	11.	61	14.	18
17	15	10	11.	73	14.	36
17	16	13	11.	22	13.	70
17	16	12	11.	74	14.	34
17	16	11	12.	14	14.	82
17	16	10	12.	45	15.	20
17	17	12	11.	90	14.	52
17	17	11	12.	52	15.	24
18	15	14	12.	80	15.	62
18	15	13	13.	00	15.	87
18	15	12	13.	13	16.	03
18	15	11	13.	20	16.	11
18	15	10	13.	23	16.	15
18	16	15	12.	52	15.	29
18	16	14	13.	09	15.	97
18	16	13	13.	49	16.	46
18	16	12	13.	78	16.	82

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
18	16	11	14.	00	17.	09
18	16	10	14.	18	17.	27
18	17	14	13.	15	16.	06
18	17	13	13.	80	16.	85
18	17	12	14.	30	17.	46
18	17	11	14.	46	17.	93
18	18	13	13.	09	16.	92
18	18	12	14.	61	17.	85
19	16	15	15.	04	18.	36
19	16	14	15.	32	18.	72
19	16	13	15.	53	18.	96
19	16	12	15.	65	19.	10
19	16	11	15.	71	19.	18
19	16	10	15.	75	19.	22
19	17	15	15.	26	18.	63
19	17	14	15.	79	19.	28
19	17	13	16.	18	19.	75
19	17	12	16.	46	20.	10
19	17	11	16.	67	20.	36
19	18	14	16.	06	19.	60
19	18	13	16.	67	20.	35
19	18	12	17.	15	20.	94
19	19	13	16.	95	20.	70
19	19	12	17.	69	21.	55
20	17	16	17.	50	21.	38



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D	DB	DH	AG	pts	WG	pts
20	17	15	17.	89	21.	85
20	17	14	18.	17	22.	18
20	17	13	18.	35	22.	39
20	17	12	18.	47	22.	55
20	17	11	18.	54	22.	63
20	18	16	17.	72	21.	59
20	18	15	18.	32	22.	37
20	18	14	18.	81	22.	96
20	18	13	19.	18	23.	41
20	18	12	19.	46	23.	75
20	19	15	18.	53	22.	62
20	19	14	19.	27	23.	52
20	19	13	19.	86	24.	24
20	19	12	20.	33	24.	81
20	20	14	19.	23	23.	48
20	20	13	20.	34	24.	83
21	18	17	20.	13	24.	57
21	18	16	20.	70	25.	27
21	18	15	21.	06	25.	71
21	18	14	21.	32	26.	02
21	18	13	21.	50	26.	24
21	18	12	21.	61	26.	39
21	19	17	20.	31	24.	79
21	19	16	21.	01	25.	65
21	19	15	21.	68	26.	47

C

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
21	19	14	22.	14	27.	04
21	19	13	22.	50	27.	48
21	19	12	22.	79	27.	82
21	20	16	21.	21	25.	89
21	20	15	22.	02	26.	88
21	20	14	22.	79	27.	84
21	20	13	23.	38	28.	54
21	21	15	22.	24	27.	15
21	21	14	22.	88	27.	93
22	19	18	23.	13	28.	23
22	19	17	23.	75	28.	99
22	19	16	24.	21	29.	56
22	19	15	24.	56	29.	98
22	19	14	24.	81	30.	29
22	19	13	24.	98	30.	50
22	19	12	25.	11	30.	65
22	20	18	23.	15	28.	26
22	20	17	24.	08	29.	39
22	20	16	24.	81	30.	28
22	20	15	25.	38	30.	98
22	20	14	25.	83	31.	53
22	20	13	26.	19	31.	97
22	21	17	24.	12	29.	44
22	21	16	25.	16	30.	72
22	21	15	26.	00	31.	75

( 15 )

D	DB	DH	AG	pts	WG	pts
22	21	14	26.	61	32.	48
22	22	16	25.	21	30.	78
22	22	15	26.	38	32.	20
22	22	14	27.	34	33.	38
23	20	19	26.	29	32.	09
23	20	18	27.	06	33.	07
23	20	17	27.	63	33.	74
23	20	16	28.	08	34.	28
23	20	15	28.	41	34.	68
23	20	14	28.	66	34.	98
23	20	13	28.	83	35.	20
23	21	18	27.	32	33.	35
23	21	17	28.	19	34.	41
23	21	16	28.	88	35.	26
23	21	15	29.	43	35.	93
23	21	14	29.	88	36.	48
23	22	17	28.	47	34.	76
23	22	16	29.	46	35.	97
23	22	15	30.	25	36.	93
23	22	14	30.	95	37.	78
23	23	16	29.	76	36.	33
23	23	15	30.	88	37.	70
24	20	19	30.	17	36.	83
24	20	18	30.	61	37.	37
24	20	17	30.	91	37.	73

C 2

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D	DB	DH	AG	pts	WG	pts
21	19	14	22.	14	27.	04
21	19	13	22.	50	27.	48
21	19	12	22.	79	27.	82
21	20	16	21.	21	25.	89
21	20	15	22.	02	26.	88
21	20	14	22.	79	27.	84
21	20	13	23.	38	28.	54
21	21	15	22.	24	27.	15
21	21	14	22.	88	27.	93
22	19	18	23.	13	28.	23
22	19	17	23.	75	28.	99
22	19	16	24.	21	29.	56
22	19	15	24.	56	29.	98
22	19	14	24.	81	30.	29
22	19	13	24.	98	30.	50
22	19	12	25.	11	30.	65
22	20	18	23.	15	28.	26
22	20	17	24.	08	29.	39
22	20	16	24.	81	30.	28
22	20	15	25.	38	30.	98
22	20	14	25.	83	31.	53
22	20	13	26.	19	31.	97
22	21	17	24.	12	29.	44
22	21	16	25.	16	30.	72
22	21	15	26.	00	31.	75

( 15 )

D	DB	DH	AG	pts	WG	pts
22	21	14	26.	61	32.	48
22	22	16	25.	21	30.	78
22	22	15	26.	38	32.	20
22	22	14	27.	34	33.	38
23	20	19	26.	29	32.	09
23	20	18	27.	06	33.	07
23	20	17	27.	63	33.	74
23	20	16	28.	08	34.	28
23	20	15	28.	41	34.	68
23	20	14	28.	66	34.	98
23	20	13	28.	83	35.	20
23	21	18	27.	32	33.	35
23	21	17	28.	19	34.	41
23	21	16	28.	88	35.	26
23	21	15	29.	43	35.	93
23	21	14	29.	88	36.	48
23	22	17	28.	47	34.	76
23	22	16	29.	46	35.	97
23	22	15	30.	25	36.	93
23	22	14	30.	95	37.	78
23	23	16	29.	76	36.	33
23	23	15	30.	88	37.	70
24	20	19	30.	17	36.	83
24	20	18	30.	61	37.	37
24	20	17	30.	91	37.	73

C 2

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
24	20	16	31.	13	38.	01
24	20	15	31.	26	38.	17
24	20	14	31.	34	38.	26
24	20	13	31.	36	38.	29
24	21	20	29.	72	36.	27
24	21	19	30.	63	37.	39
24	21	18	31.	34	38.	26
24	21	17	31.	89	38.	93
24	21	16	32.	30	39.	43
24	21	15	32.	64	39.	83
24	21	14	32.	88	40.	14
24	22	19	30.	80	37.	60
24	22	18	31.	83	38.	86
24	22	17	32.	66	39.	87
24	22	16	33.	33	40.	69
24	22	15	34.	86	41.	34
24	22	14	34.	32	41.	90
24	23	18	32.	03	39.	10
24	23	17	33.	19	40.	52
24	23	16	34.	14	41.	68
24	23	15	34.	94	42.	65
24	24	17	33.	40	40.	77
24	24	16	34.	69	42.	35
25	21	20	34.	07	41.	59
25	21	19	34.	63	42.	27

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D	D B	DH	AG	pts	WG	pts
25	21	18	35.	04	42.	78
25	21	17	35.	39	43.	21
25	21	16	35.	54	43.	39
25	21	15	35.	65	43.	54
25	21	14	35.	74	43.	64
25	22	21	33.	37	40.	75
25	22	20	34.	46	42.	07
25	22	19	35.	32	43.	12
25	22	18	35.	99	43.	94
25	22	17	36.	53	44.	59
25	22	16	36.	94	45.	09
25	22	15	37.	26	45.	48
25	22	14	37.	51	45.	79
25	23	20	34.	54	42.	17
25	23	19	35.	75	43.	64
25	23	18	36.	73	44.	84
25	23	17	37.	53	45.	81
25	23	16	38.	18	46.	61
25	23	15	38.	72	47.	26
25	24	19	35.	85	43.	76
25	24	18	37.	18	45.	39
25	24	17	38.	29	46.	75
25	24	16	39.	23	47.	89
25	25	18	37.	29	45.	53
25	25	17	38.	77	47.	33

C 3

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
25	25	16	40.	02	48.	86
26	22	21	38.	26	46.	71
26	22	20	38.	94	47.	54
26	22	19	39.	47	48.	19
26	22	18	39.	86	48.	67
26	22	17	40.	15	49.	01
26	22	16	40.	35	49.	25
26	22	15	40.	48	49.	41
26	22	14	40.	56	49.	52
26	23	22	37.	31	45.	55
26	23	21	38.	57	47.	08
26	23	20	39.	59	48.	33
26	23	19	40.	39	49.	31
26	23	18	41.	05	50.	11
26	23	17	41.	56	50.	74
26	23	16	41.	97	51.	24
26	23	15	42.	29	51.	63
26	24	21	38.	54	47.	06
26	24	20	39.	93	48.	75
26	24	19	41.	08	50.	15
26	24	18	42.	01	51.	29
26	24	17	42.	80	52.	25
26	24	16	43.	44	53.	04
26	25	20	39.	93	48.	73
26	25	19	41.	45	50.	60



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D	DB	DH	AG	pts	WG	pts
26	25	18	42.	71	52.	10
26	25	17	43.	81	53.	48
26	25	16	44.	73	54.	61
26	26	19	41.	45	50.	60
26	26	18	43.	12	52.	64
26	26	17	44.	56	54.	40
27	23	22	42.	74	52.	18
27	23	21	43.	58	53.	20
27	23	20	44.	23	53.	99
27	23	19	44.	73	54.	60
27	23	18	45.	10	55.	06
27	23	17	45.	38	55.	40
27	23	16	45.	57	55.	64
27	23	15	45.	71	55.	80
27	24	22	42.	97	52.	45
27	24	21	44.	16	53.	91
27	24	20	45.	12	55.	08
27	24	19	45.	89	56.	03
27	24	18	46.	52	56.	79
27	24	17	47.	03	57.	42
27	24	16	47.	43	57.	90
27	25	21	44.	41	54.	22
27	25	20	45.	74	55.	84
27	25	19	46.	83	57.	14
27	25	18	47.	74	58.	29

( 20 )

D	DB	DH	AG	pts	WG	pts
27	25	17	48.	51	59.	22
27	25	16	49.	15	60.	01
27	26	20	46.	02	56.	18
27	26	19	47.	48	57.	98
27	26	18	48.	72	59.	52
27	26	17	49.	78	60.	77
27	27	19	47.	78	58.	20
27	27	18	49.	40	60.	30
27	27	17	50.	79	62.	00
28	24	23	47.	53	58.	02
28	24	22	48.	52	59.	23
28	24	21	49.	31	60.	28
28	24	20	49.	93	60.	95
28	24	19	50.	40	61.	53
28	24	18	50.	77	61.	98
28	24	17	51.	04	62.	32
28	24	16	52.	24	62.	56
28	25	23	47.	65	58.	17
28	25	22	49.	03	59.	85
28	25	21	50.	15	61.	23
28	25	20	51.	07	62.	35
28	25	19	51.	83	63.	27
28	25	18	52.	40	64.	01
28	25	17	52.	94	64.	63
28	25	16	53.	35	65.	13

## ( 21 )

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
28	26	22	49.	18	60.	04
28	26	21	50.	69	61.	89
28	26	20	51.	96	63.	43
28	26	19	53.	02	64.	73
28	26	18	53.	91	65.	82
28	26	17	54.	60	66.	74
28	27	21	50.	87	62.	10
28	27	20	52.	53	64.	13
28	27	19	53.	95	65.	86
28	27	18	55.	16	67.	34
28	28	20	52.	72	64.	35
28	28	19	54.	54	66.	58
28	28	18	56.	11	68.	50
29	25	24	52.	62	64.	24
29	25	23	53.	79	65.	66
29	25	22	54.	73	66.	81
29	25	21	55.	48	67.	72
29	25	20	56.	07	68.	45
29	25	19	56.	53	69.	02
29	25	18	56.	89	69.	46
29	25	17	57.	17	69.	79
29	25	16	57.	37	70.	04
29	26	24	52.	63	64.	25
29	26	23	54.	21	66.	16
29	26	22	55.	51	67.	77

( 22 )

D	DB	DH	AG	pts	WG	pts
29	26	21	56.	59	69.	08
29	26	20	57.	48	70.	17
29	26	19	58.	21	71.	06
29	26	18	58.	81	71.	80
29	26	17	59.	32	72.	41
29	27	23	54.	24	66.	21
29	27	22	55.	96	68.	32
29	27	21	57.	42	70.	09
29	27	20	58.	64	71.	59
29	27	19	59.	68	72.	85
29	27	18	60.	52	73.	93
29	28	22	55.	99	68.	35
29	28	21	57.	90	70.	68
29	28	20	59.	50	72.	64
29	28	19	60.	88	74.	32
29	28	18	62.	07	75.	78
29	29	21	57.	95	70.	75
29	29	20	60.	00	73.	25
29	29	19	61.	77	75.	41
30	25	24	58.	72	71.	68
30	25	23	59.	48	72.	61
30	25	22	60.	06	73.	32
30	25	21	60.	49	73.	85
30	25	20	60.	82	74.	24
30	25	19	61.	03	74.	50

( 23 )

D	DB	DH	AG	PI	WG	PI
30	25	18	61.	17	74.	67
30	25	17	61.	24	74.	76
30	25	16	61.	27	74.	79
30	26	25	58.	02	70.	84
30	26	24	59.	38	72.	49
30	26	23	60.	49	73.	84
30	26	22	61.	38	74.	93
30	26	21	62.	10	75.	81
30	26	20	62.	68	76.	52
30	26	19	63.	13	77.	07
30	26	18	63.	49	77.	51
30	26	17	63.	79	77.	85
30	27	24	59.	70	72.	88
30	27	23	61.	20	74.	71
30	27	22	62.	43	76.	23
30	27	21	63.	49	77.	51
30	27	20	64.	35	78.	56
30	27	19	65.	07	79.	44
30	27	18	65.	68	80.	18
30	28	23	61.	55	75.	14
30	28	22	63.	20	77.	16
30	28	21	64.	63	78.	86
30	28	20	65.	79	80.	32
30	28	19	66.	81	81.	56
30	28	18	67.	69	82.	63

( 22 )

D	DB	DH	AG	pts	WG	pts
29	26	21	56.	59	69.	08
29	26	20	57.	48	70.	17
29	26	19	58.	21	71.	06
29	26	18	58.	81	71.	80
29	26	17	59.	32	72.	41
29	27	23	54.	24	66.	21
29	27	22	55.	96	68.	32
29	27	21	57.	42	70.	09
29	27	20	58.	64	71.	59
29	27	19	59.	68	72.	85
29	27	18	60.	52	73.	93
29	28	22	55.	99	68.	35
29	28	21	57.	90	70.	68
29	28	20	59.	50	72.	64
29	28	19	60.	88	74.	32
29	28	18	62.	07	75.	78
29	29	21	57.	95	70.	75
29	29	20	60.	00	73.	25
29	29	19	61.	77	75.	41
30	25	24	58.	72	71.	68
30	25	23	59.	48	72.	61
30	25	22	60.	06	73.	32
30	25	21	60.	49	73.	85
30	25	20	60.	82	74.	24
30	25	19	61.	03	74.	50

( 23 )

D	DB	DH	AG	ps	WG	pts
30	25	18	61.	17	74	67
30	25	17	61.	24	74.	76
30	25	16	61.	27	74.	79
30	26	25	58.	02	70.	84
30	26	24	59.	38	72.	49
30	26	23	60.	49	73.	84
30	26	22	61.	38	74.	93
30	26	21	62.	10	75.	81
30	26	20	62.	68	76.	52
30	26	19	63.	13	77.	07
30	26	18	63.	49	77.	51
30	26	17	63.	79	77.	85
30	27	24	59.	70	72.	88
30	27	23	61.	20	74.	71
30	27	22	62.	43	76.	23
30	27	21	63.	49	77.	51
30	27	20	64.	35	78.	56
30	27	19	65.	07	79.	44
30	27	18	65.	68	80.	18
30	28	23	61.	55	75.	14
30	28	22	63.	20	77.	16
30	28	21	64.	63	78.	86
30	28	20	65.	79	80.	32
30	28	19	66.	81	81.	56
30	28	18	67.	69	82.	63

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
30	29	22	63.	58	77.	61
30	29	21	65.	39	79.	83
30	29	20	66.	95	81.	73
30	29	19	68.	30	83.	38
30	30	21	65.	78	80.	30
30	30	20	67.	76	82.	72
31	26	25	64.	73	79.	02
31	26	24	65.	66	80.	13
31	26	23	66.	36	81.	01
31	26	22	69.	91	81.	68
31	26	21	67.	33	82.	19
31	26	20	67.	68	82.	58
31	26	19	67.	85	82.	83
31	26	18	67.	99	83.	00
31	26	17	68.	07	83.	10
31	27	26	65.	76	77.	87
31	27	25	65.	31	79.	73
31	27	24	66.	60	81.	31
31	27	23	67.	65	82.	58
31	27	22	68.	51	83.	63
31	27	21	69.	21	84.	48
31	27	20	69.	77	85.	17
31	27	19	79.	23	85.	74
31	27	18	70.	58	86.	16
31	28	25	65.	52	79.	98



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D	DB	DH	AG	pts	WG	pts
31	28	24	67.	23	82.	07
31	28	23	68.	66	83.	82
31	28	22	69.	86	85.	29
31	28	21	70.	87	86.	52
31	28	20	71.	72	87.	56
31	28	19	72.	44	88.	43
31	28	18	73.	05	89.	18
31	29	24	67.	46	82.	35
31	29	23	69.	32	84.	63
31	29	22	70.	92	86.	58
31	29	21	72.	28	88.	24
31	29	20	73.	45	89.	66
31	29	19	74.	45	90.	89
31	30	23	69.	56	84.	92
31	30	22	71.	62	87.	43
31	30	21	73.	37	89.	57
31	30	20	74.	90	91.	44
31	31	22	71.	88	87.	75
31	31	21	74.	09	90.	45
31	31	20	76.	03	92.	81
32	27	26	71.	09	86.	78
32	27	25	72.	15	88.	11
32	27	24	73.	04	89.	16
32	27	23	73.	72	89.	99
32	27	22	74.	21	90.	64

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<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
32	27	21	74.	66	91.	14
32	27	20	74.	95	91.	50
32	27	19	75.	16	91.	75
32	27	18	75.	35	91.	94
32	28	27	69.	81	85.	22
32	28	26	71.	59	87.	39
32	28	25	73.	05	89.	31
32	28	24	74.	29	90.	69
32	28	23	75.	30	91.	92
32	28	22	76.	13	92.	93
32	28	21	76.	81	93.	77
32	28	20	77.	37	94.	45
32	28	19	77.	82	95.	00
32	28	18	78.	18	95.	44
32	29	26	71.	66	87.	49
32	29	25	73.	60	89.	85
32	29	24	75.	22	91.	82
32	29	23	76.	61	93.	53
32	29	22	77.	78	94.	95
32	29	21	78.	76	96.	15
32	29	20	79.	60	97.	18
32	29	19	80.	32	98.	05
32	30	25	73.	70	89.	97
32	30	24	75.	80	92.	53
32	30	23	77.	65	94.	79

( 27 )

pts

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D	DB	DH	AG	pts	WG	pts
32	30	22	79.	11	96.	58
32	30	21	80.	47	98.	24
32	30	20	81.	62	99.	64
32	31	24	75.	92	92.	68
32	31	23	78.	19	95.	45
32	31	22	80.	15	97.	84
32	31	21	81.	87	99.	95
32	31	20	83.	38	101.	79
32	32	23	78.	32	095.	61
32	32	22	80.	77	098.	61
32	32	21	82.	91	101.	22
33	28	27	77.	82	095.	00
33	28	26	79.	08	096.	54
33	28	25	80.	10	097.	79
33	28	24	80.	93	098.	80
33	28	23	81.	58	099.	59
33	28	22	82.	10	100.	22
33	28	21	82.	49	100.	71
33	28	20	82.	79	101.	07
33	28	19	83.	01	101.	33
33	28	18	83.	16	101.	52
33	29	28	76.	19	093.	02
33	29	27	78.	20	095.	47
33	29	26	79.	89	097.	53
33	29	25	81.	30	099.	25

D 2

D	DB	DH	AG	pts	WG	pts
33	29	24	82.	48	100.	69
33	29	23	83.	46	101.	88
33	29	22	84.	26	102.	87
33	29	21	84.	94	103.	69
33	29	20	85.	49	104.	37
33	29	19	85.	95	104.	92
33	30	27	78.	14	095.	39
33	30	26	80.	31	098.	05
33	30	25	82.	16	100.	30
33	30	24	83.	73	102.	22
33	30	23	85.	07	103.	85
33	30	22	86.	22	105.	25
33	30	21	87.	19	106.	44
33	30	20	88.	02	107.	45
33	31	26	80.	27	098.	00
33	31	25	82.	62	100.	86
33	31	24	84.	63	103.	32
33	31	23	86.	38	105.	45
33	31	22	87.	88	107.	29
33	31	21	89.	19	108.	89
33	31	20	90.	34	110.	28
33	32	25	82.	59	100.	83
33	32	24	85.	11	103.	91
33	32	23	87.	31	106.	59
33	32	22	89.	23	108.	93

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	D	DB	DH	AG	pts	WG	pts
69	33	32	21	90.	92	110.	99
88	33	33	24	85.	09	103.	88
87	33	33	23	87.	81	107.	19
69	33	33	22	90.	19	110.	10
87	34	29	28	84.	95	103.	66
02	34	29	27	86.	37	105.	44
89	34	29	26	87.	57	106.	90
05	34	29	25	88.	54	108.	09
80	34	29	24	89.	34	109.	06
22	34	29	23	89.	97	109.	84
85	34	29	22	90.	48	110.	45
5	34	29	21	90.	86	110.	92
44	34	29	20	91.	16	111.	29
5	34	29	19	91.	39	111.	56
00	34	30	28	85.	18	103.	99
86	34	30	27	87.	09	106.	32
2	34	30	26	88.	70	108.	28
5	34	30	25	90.	05	109.	94
9	34	30	24	91.	19	111.	33
9	34	30	23	92.	15	112.	49
8	34	30	22	92.	94	113.	46
3	34	30	21	93.	61	114.	27
01	34	30	20	94.	07	114.	84
9	34	31	27	87.	39	106.	68
3	34	31	26	89.	46	109.	22

D 3

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D	DB	DH	AG	pts	WG	pts
34	31	25	91.	22	111.	36
34	31	24	92.	76	113.	25
34	31	23	94.	07	114.	84
34	31	22	95.	19	116.	21
34	31	21	96.	16	117.	39
34	31	20	96.	99	118.	40
34	32	26	89.	80	109.	62
34	32	25	92.	05	112.	37
34	32	24	94.	00	114.	75
34	32	23	95.	70	116.	83
34	32	22	97.	18	118.	64
34	32	21	98.	48	120.	22
34	33	25	92.	40	112.	80
34	33	24	94.	84	115.	78
34	33	23	96.	97	118.	38
34	33	22	98.	86	120.	68
34	34	24	95.	20	116.	22
34	34	23	97.	83	119.	43
34	34	22	100.	16	122.	28
35	30	20	092.	39	112.	79
35	30	28	094.	05	114.	82
35	30	27	095.	43	116.	54
35	30	26	096.	58	117.	90
35	30	25	097.	52	119.	05
35	30	24	098.	28	119.	98

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D	DB	DH	AG	pts	WG	pts
35	30	23	098.	90	120.	74
35	30	22	099.	40	121.	34
35	30	21	099.	79	121.	82
35	30	20	100.	08	122.	17
35	31	29	092.	52	112.	94
35	31	28	094.	67	115.	57
35	31	27	096.	45	117.	75
35	31	26	098.	03	119.	68
35	31	25	099.	35	121.	28
35	31	24	100.	41	122.	58
35	31	23	101.	39	123.	77
35	31	22	102.	17	124.	73
35	31	21	102.	79	125.	49
35	31	20	103.	40	126.	23
35	32	28	094.	83	115.	76
35	32	27	097.	15	118.	60
35	32	26	099.	15	121.	04
35	32	25	100.	87	123.	13
35	32	24	102.	35	124.	95
35	32	23	103.	63	126.	51
35	32	22	104.	74	127.	86
35	32	21	105.	70	129.	04
35	33	27	097.	34	118.	83
35	33	26	099.	84	121.	88
35	33	25	102.	02	124.	55

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<u>D.</u>	<u>D.B.</u>	<u>D.H.</u>	<u>A.G.</u>	<u>pts</u>	<u>W.G.</u>	<u>pts</u>
35	33	24	103.	92	126.	87
35	33	23	105.	59	128.	90
35	33	22	107.	05	130.	68
35	34	26	100.	05	122.	14
35	34	25	102.	75	125.	43
35	34	24	105.	12	128.	32
35	34	23	107.	20	130.	87
35	34	22	109.	06	133.	14
35	35	25	102.	96	125.	70
35	35	24	105.	86	129.	23
35	35	23	108.	43	132.	37
36	30	29	101.	21	123.	56
36	30	28	102.	38	124.	98
36	30	27	103.	31	126.	12
36	30	26	104.	06	127.	04
36	30	25	104.	65	127.	76
36	30	24	105.	08	128.	29
36	30	23	105.	41	128.	68
36	30	22	105.	63	128.	96
36	30	21	105.	78	129.	17
36	30	20	105.	85	129.	22
36	31	30	100.	24	122.	37
36	31	29	102.	12	124.	67
36	31	28	103.	71	126.	60
36	31	27	105.	03	128.	22



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D	DB	DH	AG	pts	WG	pts
36	31	26	106.	13	129.	57
36	31	25	107.	05	130.	68
36	31	24	107.	80	131.	60
36	31	23	108.	40	132.	38
36	31	22	108.	89	132.	93
36	31	21	109.	28	133.	40
36	31	20	109.	60	133.	80
36	32	30	100.	22	122.	35
36	32	29	102.	62	125.	28
36	32	28	104.	64	127.	78
36	32	27	106.	43	129.	92
36	32	26	108.	04	131.	75
36	32	25	109.	20	133.	21
36	32	24	110.	28	134.	63
36	32	23	111.	21	135.	76
36	32	22	111.	99	136.	71
36	32	21	112.	65	137.	52
36	33	29	102.	63	125.	29
36	33	28	105.	24	128.	45
36	33	27	107.	45	131.	17
36	33	26	109.	38	133.	53
36	33	25	111.	08	135.	60
36	33	24	112.	51	137.	35
36	33	23	113.	77	138.	89
36	33	22	114.	88	140.	24

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
36	34	28	105.	25	128.	49
36	34	27	108.	13	132.	00
36	34	26	110.	44	134.	82
36	34	25	112.	56	137.	41
36	34	24	114.	42	139.	68
36	34	23	116.	06	141.	68
36	34	22	117.	51	143.	46
36	35	27	108.	07	131.	93
36	35	26	111.	04	135.	56
36	35	25	113.	66	138.	75
36	35	24	115.	97	141.	57
36	35	23	118.	03	144.	09
36	36	26	111.	10	135.	63
36	36	25	114.	27	139.	50
36	36	24	117.	09	142.	95
37	31	30	109.	82	134.	06
37	31	29	111.	14	135.	68
37	31	28	112.	25	137.	03
37	31	27	113.	14	138.	13
37	31	26	113.	86	139.	00
37	31	25	114.	42	139.	68
37	31	24	114.	85	140.	21
37	31	23	115.	17	140.	60
37	31	22	115.	39	140.	87
37	31	21	115.	54	141.	05

D	DB	DH	AG	pts	WG	pts
37	31	20	115.	63	141.	16
37	32	31	108.	48	132.	43
37	32	30	110.	60	135.	02
37	32	29	112.	40	137.	21
37	32	28	113.	92	139.	07
37	32	27	115.	19	140.	62
37	32	26	116.	26	141.	93
37	32	25	117.	15	143.	01
37	32	24	117.	88	143.	91
37	32	23	118.	48	144.	64
37	32	22	118.	97	145.	24
37	32	21	119.	37	145.	73
37	33	31	108.	29	132.	20
37	33	30	110.	97	135.	47
37	33	29	113.	27	138.	27
37	33	28	115.	24	140.	68
37	33	27	116.	93	142.	75
37	33	26	118.	38	144.	52
37	33	25	119.	63	146.	05
37	33	24	120.	70	147.	35
37	33	23	121.	61	148.	46
37	33	22	122.	39	149.	41
37	34	30	110.	81	135.	28
37	34	29	113.	67	138.	77
37	34	28	116.	15	141.	80

D	DB	DH	AG	pts	WG	pts
37	34	27	118.	31	144.	43
37	34	26	120.	19	146.	73
37	34	25	121.	83	148.	73
37	34	24	123.	26	150.	47
37	34	23	124.	51	152.	00
37	34	22	125.	61	153.	34
37	35	29	113.	54	138.	61
37	35	28	116.	59	142.	34
37	35	27	119.	38	145.	73
37	35	26	121.	62	148.	47
37	35	25	123.	69	151.	00
37	35	24	125.	52	153.	23
37	35	23	127.	15	155.	22
37	36	28	116.	47	142.	18
37	36	27	119.	73	146.	16
37	36	26	122.	61	149.	68
37	36	25	125.	16	152.	79
37	36	24	127.	43	155.	57
37	37	27	119.	61	146.	02
37	37	26	123.	08	150.	26
37	37	25	126.	17	154.	03
37	37	24	128.	93	157.	40
38	32	31	118.	79	145.	02
38	32	30	120.	34	146.	91
38	32	29	121.	66	148.	48

D	DE	DH	AG	pts	WG	pts
38	32	28	122.	69	149.	77
38	32	27	123.	55	150.	83
38	32	26	124.	25	151.	69
38	32	25	124.	79	152.	34
38	32	24	125.	21	152.	86
38	32	23	125.	53	153.	24
38	32	22	125.	75	153.	52
38	32	21	125.	91	153.	71
38	33	32	117.	10	142.	95
38	33	31	119.	48	145.	87
38	33	30	121.	51	148.	33
38	33	29	123.	24	150.	44
38	33	28	124.	70	152.	23
38	33	27	125.	94	153.	74
38	33	26	126.	98	155.	01
38	33	25	127.	85	156.	07
38	33	24	128.	57	156.	96
38	33	23	129.	17	157.	69
38	33	22	129.	67	158.	30
38	34	31	119.	71	146.	14
38	34	30	122.	27	149.	26
38	34	29	124.	48	151.	96
38	34	28	126.	38	154.	28
38	34	27	128.	03	156.	29
38	34	26	129.	45	158.	03

E

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
37	34	27	118.	31	144.	43
37	34	26	120.	19	146.	73
37	34	25	121.	83	148.	73
37	34	24	123.	26	150.	47
37	34	23	124.	51	152.	00
37	34	22	125.	61	153.	34
37	35	29	113.	54	138.	61
37	35	28	116.	59	142.	34
37	35	27	119.	38	145.	73
37	35	26	121.	62	148.	47
37	35	25	123.	69	151.	00
37	35	24	125.	52	153.	23
37	35	23	127.	15	155.	22
37	36	28	116.	47	142.	18
37	36	27	119.	73	146.	16
37	36	26	122.	61	149.	68
37	36	25	125.	16	152.	79
37	36	24	127.	43	155.	57
37	37	27	119.	61	146.	02
37	37	26	123.	08	150.	26
37	37	25	126.	17	154.	03
37	37	24	128.	93	157.	40
38	32	31	118.	79	145.	02
38	32	30	120.	34	146.	91
38	32	29	121.	66	148.	48

D	DE	DH	AG	pts	WG	pts
38	32	28	122.	69	149.	77
38	32	27	123.	55	150.	83
38	32	26	124.	25	151.	69
38	32	25	124.	79	152.	34
38	32	24	125.	21	152.	86
38	32	23	125.	53	153.	24
38	32	22	125.	75	153.	52
38	32	21	125.	91	153.	71
38	33	32	117.	10	142.	95
38	33	31	119.	48	145.	87
38	33	30	121.	51	148.	33
38	33	29	123.	24	150.	44
38	33	28	124.	70	152.	23
38	33	27	125.	94	153.	74
38	33	26	126.	98	155.	01
38	33	25	127.	85	156.	07
38	33	24	128.	57	156.	96
38	33	23	129.	17	157.	69
38	33	22	129.	67	158.	30
38	34	31	119.	71	146.	14
38	34	30	122.	27	149.	26
38	34	29	124.	48	151.	96
38	34	28	126.	38	154.	28
38	34	27	128.	03	156.	29
38	34	26	129.	45	158.	03

D	DB	DH	AG	pts	WG	pts
38	34	25	130.	67	159.	52
38	34	24	131.	72	160.	81
38	34	23	132.	63	161.	92
38	34	22	133.	42	162.	88
38	35	30	122.	52	149.	57
38	35	29	125.	27	152.	93
38	35	28	127.	67	155.	86
38	35	27	129.	77	158.	42
38	35	26	131.	60	160.	66
38	35	25	133.	22	162.	63
38	35	24	134.	63	164.	35
38	35	23	135.	87	165.	87
38	36	29	125.	54	153.	28
38	36	28	128.	51	156.	88
38	36	27	131.	11	160.	05
38	36	26	133.	40	162.	84
38	36	25	135.	44	165.	34
38	36	24	137.	25	167.	55
38	37	28	128.	81	157.	26
38	37	27	131.	97	161.	11
38	37	26	134.	78	164.	54
38	37	25	137.	31	167.	59
38	37	24	139.	52	170.	32
38	38	27	132.	29	161.	50
38	38	26	135.	67	165.	62



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	D	DB	DH	AG	pts	WG	pts
52	38	38	25	138.	69	169.	31
81	39	33	32	128.	21	156.	52
92	39	33	31	129.	98	158.	68
88	39	33	30	131.	46	160.	49
57	39	33	29	132.	70	161.	99
93	39	33	28	133.	72	163.	24
86	39	33	27	134.	55	164.	26
42	39	33	26	135.	23	165.	08
66	39	33	25	135.	74	165.	76
63	39	33	24	136.	21	166.	28
35	39	33	23	136.	50	166.	63
87	39	33	22	136.	73	166.	92
28	39	34	33	126.	14	153.	99
88	39	34	32	128.	79	157.	22
05	39	34	31	131.	06	160.	00
84	39	34	30	133.	00	162.	37
34	39	34	29	134.	67	164.	40
55	39	34	28	136.	08	166.	13
26	39	34	27	137.	28	167.	59
11	39	34	26	138.	30	168.	84
54	39	34	25	139.	16	169.	89
59	39	34	24	139.	88	170.	77
32	39	34	23	140.	48	171.	50
50	39	34	22	140.	99	172.	11
62	39	34	32	128.	85	157.	30

D	DB	DH	AG	pts	WG	pts
39	35	31	131.	68	160.	76
39	35	30	134.	14	163.	76
39	35	29	136.	27	166.	36
39	35	28	138.	13	168.	62
39	35	27	139.	73	170.	58
39	35	26	141.	12	172.	28
39	35	25	142.	33	173.	76
39	35	24	143.	38	175.	03
39	35	23	144.	29	176.	15
39	36	31	131.	85	160.	87
39	36	30	134.	81	164.	57
39	36	29	137.	46	167.	81
39	36	28	139.	79	170.	66
39	36	27	141.	84	173.	16
39	36	26	143.	64	175.	36
39	36	25	145.	23	177.	29
39	36	24	146.	64	179.	01
39	37	30	134.	93	164.	72
39	37	29	138.	17	168.	67
39	37	28	141.	03	172.	17
39	37	27	143.	56	175.	26
39	37	26	145.	81	178.	01
39	37	25	147.	82	180.	45
39	37	24	149.	61	182.	64
39	38	29	138.	31	168.	84

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	D	DB	DH	AG	pts	WG	pts
6	39	38	28	141.	76	173.	06
16	39	38	27	144.	83	176.	81
36	39	38	26	147.	58	180.	16
52	39	38	25	150.	04	183.	17
78	39	39	28	141.	91	173.	24
88	39	39	27	145.	58	177.	72
76	39	39	26	148.	88	181.	75
03	40	33	32	138.	68	169.	30
15	40	33	31	139.	93	170.	82
37	40	33	30	140.	94	172.	06
57	40	33	29	141.	75	173.	05
81	40	33	28	142.	38	173.	82
66	40	33	27	142.	86	174.	44
16	40	33	26	143.	20	174	82
36	40	33	25	143.	43	175.	10
59	40	33	24	143.	57	175.	27
01	40	33	23	143.	63	175.	34
22	40	33	22	143.	62	175.	33
57	40	34	33	138.	07	168.	56
77	40	34	32	140.	07	170.	99
16	40	34	31	141.	76	173.	06
01	40	34	30	143.	18	174.	80
45	40	34	29	144.	38	176.	25
44	40	34	28	145.	37	177.	46
44	40	34	27	146.	18	178.	45

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
40	34	26	146.	84	179.	26
40	34	25	147.	37	179.	90
40	34	24	147.	79	180.	41
40	34	23	148.	10	180.	80
40	34	22	148.	35	181.	10
40	35	34	135.	58	165.	51
40	35	33	138.	51	169.	09
40	35	32	141.	04	172.	18
40	35	31	143.	22	174.	84
40	35	30	145.	10	177.	13
40	35	29	146.	71	179.	10
40	35	28	148.	08	180.	78
40	35	27	149.	26	182.	22
40	35	26	150.	26	183.	44
40	35	25	151.	11	184.	48
40	35	24	151.	83	185.	35
40	35	23	152.	44	186.	10
40	36	33	138.	40	168.	95
40	36	32	141.	52	172.	77
40	36	31	144.	25	176.	09
40	36	30	146.	62	178.	99
40	36	29	148.	69	181.	52
40	36	28	150.	50	183.	72
40	36	27	152.	07	185.	64
40	36	26	153.	44	187.	32

D	DB	DH	AG	pts	WG	pts
40	36	25	154.	64	188.	78
40	36	24	155.	69	190.	06
40	37	32	141.	44	172.	67
40	37	31	144.	77	176.	73
40	37	30	147.	70	180.	31
40	37	29	150.	27	183.	45
40	37	28	152.	55	186.	23
40	37	27	154.	55	188.	67
40	37	26	156.	33	190.	84
40	37	25	157.	90	192.	76
40	37	24	159.	30	194.	47
40	38	31	144.	72	176.	67
40	38	30	148.	25	180.	98
40	38	29	151.	39	184.	82
40	38	28	154.	18	188.	22
40	38	27	156.	66	191.	25
40	38	26	158.	88	193.	95
40	38	25	160.	86	196.	38
40	39	30	148.	21	180.	93
40	39	29	151.	97	185.	52
40	39	28	155.	33	189.	62
40	39	27	158.	33	193.	29
40	39	26	161.	04	196.	59
40	40	29	151.	93	185.	48
40	40	28	155.	93	190.	35

D	DB	DH	AG	pts	WG	pts
40	40	27	159.	51	194.	73
40	40	26	162.	67	198.	67
41	34	33	149.	36	182.	29
41	34	32	150.	76	184.	05
41	34	31	151.	95	185.	50
41	34	30	152.	92	186.	68
41	34	29	153.	70	187.	63
41	34	28	154.	31	188.	37
41	34	27	154.	77	188.	94
41	34	26	155.	16	189.	41
41	34	25	155.	33	189.	62
41	34	24	155.	47	189.	79
41	34	23	155.	54	189.	87
41	35	34	148.	38	181.	14
41	35	33	150.	62	183.	87
41	35	32	152.	53	186.	20
41	35	31	154.	15	188.	19
41	35	30	155.	53	189.	87
41	35	29	156.	68	191.	28
41	35	28	157.	65	192.	46
41	35	27	158.	46	193.	42
41	35	26	159.	09	194.	22
41	35	25	159.	62	194.	86
41	35	24	160.	04	195.	37
41	35	23	160.	37	195.	78

D	D.B	DH	AG	pts	WG	pts
4I	36	35	145.	42	177.	53
4I	36	34	148.	66	181.	48
4I	36	33	151.	46	184.	90
4I	36	32	153.	89	187.	87
4I	36	31	156.	00	190.	44
4I	36	30	157.	81	192.	66
4I	36	29	159.	38	194.	57
4I	36	28	160.	73	196.	22
4I	36	27	161.	89	197.	63
4I	36	26	162.	88	198.	84
4I	36	25	163.	73	199.	87
4I	36	24	164.	44	200.	75
4I	37	34	148.	36	181.	11
4I	37	33	151.	79	185.	31
4I	37	32	154.	80	188.	97
4I	37	31	157.	43	192.	18
4I	37	30	159.	73	194.	99
4I	37	29	161.	75	197.	46
4I	37	28	163.	51	199.	61
4I	37	27	165.	06	201.	50
4I	37	26	166.	42	203.	16
4I	37	25	167.	61	204.	62
4I	38	33	151.	52	184.	97
4I	38	32	155.	16	189.	42
4I	38	31	158.	38	193.	34

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG.</u>	<u>pts</u>
41	38	30	161.	21	196.	81
41	38	29	163.	72	199.	87
41	38	28	165.	95	202.	59
41	38	27	167.	92	205.	00
41	38	26	169.	68	207.	14
41	38	25	171.	25	209.	05
41	39	32	154.	91	189.	11
41	39	31	158.	77	193.	83
41	39	30	162.	20	198.	02
41	39	29	165.	26	201.	74
41	39	28	167.	98	205.	07
41	39	27	170.	42	208.	05
41	39	26	172.	61	210.	72
41	40	31	158.	53	193.	53
41	40	30	162.	06	197.	84
41	40	29	166.	30	203.	02
41	40	28	169.	56	206.	99
41	40	27	172.	51	210.	59
41	40	26	175.	17	213.	84
41	41	30	162.	38	198.	23
41	41	29	166.	71	203.	51
41	41	28	170.	60	208.	26
41	41	27	174.	11	212.	55
42	35	34	160.	43	195.	86
42	35	33	162.	08	197.	87



D	DB	DH	AG	pts	WG	pts
42	35	32	163.	46	199.	55
42	35	31	164.	60	200.	95
42	35	30	165.	54	202.	08
42	35	29	166.	29	203.	00
42	35	28	166.	87	203.	72
42	35	27	167.	32	204.	26
42	35	26	167.	65	204.	67
42	35	25	167.	89	204.	95
42	35	24	168.	03	205.	13
42	35	23	168.	10	205.	22
42	36	35	159.	12	194.	25
42	36	34	161.	62	197.	30
42	36	33	163.	77	199.	97
42	36	32	165.	61	202.	17
42	36	31	167.	18	204.	09
42	36	30	168.	51	205.	72
42	36	29	169.	64	207.	09
42	36	28	170.	58	208.	24
42	36	27	171.	36	209.	20
42	36	26	172.	01	209.	98
42	36	25	172.	53	210.	63
42	36	24	172.	96	211.	15
42	37	35	159.	25	194.	40
42	37	34	162.	33	198.	17
42	37	33	165.	03	201.	46

D	DB	DH	AG	pts	WG	pts
42	37	32	167.	37	204.	33
42	37	31	169.	41	206.	81
42	37	30	171.	18	208.	97
42	37	29	172.	71	210.	84
42	37	28	174.	04	212.	46
42	37	27	175.	18	213.	86
42	37	26	176.	16	215.	05
42	37	25	177.	01	216.	09
42	37	24	177.	74	216.	98
42	38	34	162.	50	198.	38
42	38	33	165.	79	202.	40
42	38	32	168.	69	205.	94
42	38	31	171.	25	209.	05
42	38	30	173.	49	211.	79
42	38	29	175.	46	214.	20
42	38	28	177.	20	216.	32
42	38	27	178.	73	218.	19
42	38	26	180.	08	219.	84
42	38	25	181.	27	221.	29
42	39	33	165.	99	202.	64
42	39	32	169.	50	206.	93
42	39	31	172.	62	210.	73
42	39	30	175.	38	214.	11
42	39	29	177.	84	217.	10
42	39	28	180.	03	219.	77

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D	DB	DH	AG	pts	WG	pts
42	39	27	181.	98	222.	16
42	39	26	183.	72	224.	28
42	40	32	169.	74	207.	21
42	40	31	173.	46	211.	76
42	40	30	176.	80	215.	83
42	40	29	179.	79	219.	48
42	40	28	182.	47	222.	75
42	40	27	184.	87	225.	69
42	40	26	187.	04	228.	34
42	41	31	173.	71	212.	06
42	41	30	177.	67	226.	90
42	41	29	181.	24	221.	26
42	41	28	184.	46	225.	19
42	41	27	187.	37	228.	73
42	42	30	177.	93	217.	21
42	42	29	182.	14	222.	36
42	42	28	185.	94	227.	00
43	36	35	172.	03	210.	01
43	36	34	173.	90	212.	30
43	36	33	175.	48	214.	23
43	36	32	176.	81	215.	84
43	36	31	177.	91	217.	19
43	36	30	178.	81	218.	29
43	36	29	179.	53	219.	17
43	36	28	180.	11	219.	88

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D	DB	DH	AG	pts	WG	pts
43	36	27	18c.	55	220.	42
43	36	26	18c.	88	22c.	82
43	36	25	181.	12	221.	10
43	36	24	181.	27	221.	29
43	37	36	17c.	33	207.	93
43	37	35	173.	10	211.	32
43	37	34	175.	50	214.	24
43	37	33	177.	57	216.	77
43	37	32	179.	34	218.	94
43	37	31	18c.	87	220.	80
43	37	30	182.	16	222.	38
43	37	29	183.	27	223.	73
43	37	28	184.	19	224.	86
43	37	27	184.	96	225.	80
43	37	26	185.	61	226.	59
43	37	25	186.	14	227.	24
43	38	36	17c.	26	207.	86
43	38	35	173.	66	212.	01
43	38	34	176.	64	215.	64
43	38	33	179.	24	218.	81
43	38	32	181.	52	221.	59
43	38	31	183.	49	224.	01
43	38	30	185.	22	226.	11
43	38	29	186.	72	227.	95
43	38	28	188.	03	229.	54

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	D	DB	DH	AG	pts	W/G	pts
42	43	38	27	189.	16	230.	92
82	43	38	26	190.	21	232.	12
10	43	38	25	190.	99	233.	16
29	43	39	35	173.	64	211.	98
93	43	39	34	177.	25	216.	39
32	43	39	33	180.	44	220.	28
24	43	39	32	183.	25	223.	71
77	43	39	31	185.	73	226.	70
94	43	39	30	187.	93	229.	42
80	43	39	29	189.	86	231.	78
8	43	39	28	191.	58	233.	88
73	43	39	27	193.	10	235.	73
6	43	39	26	194.	44	237.	37
0	43	40	34	177.	27	216.	40
9	43	40	33	181.	06	221.	08
4	43	40	32	184.	50	225.	24
6	43	40	31	187.	53	228.	94
1	43	40	30	190.	23	232.	23
4	43	40	29	192.	65	235.	18
1	43	40	28	194.	80	237.	81
0	43	40	27	196.	73	240.	17
1	43	40	26	198.	47	242.	29
	43	41	33	181.	13	221.	12
	43	41	32	185.	19	226.	08
	43	41	31	188.	83	230.	52

F 2

D	DB	DH	AG	pts	WG	pts
43	41	30	192.	08	234.	49
43	41	29	195.	01	238.	07
43	41	28	197.	65	241.	29
43	41	27	200.	03	244.	20
43	42	32	185.	24	226.	14
43	42	31	189.	54	231.	39
43	42	30	193.	41	236.	11
43	42	29	196.	91	240.	38
43	42	28	200.	07	244.	24
43	43	31	189.	60	231.	46
43	43	30	194.	12	237.	00
43	43	29	198.	26	242.	03
43	43	28	202.	00	246.	60
44	37	36	184.	11	224.	75
44	37	35	186.	22	227.	33
44	37	34	188.	02	229.	53
44	37	33	189.	54	231.	39
44	37	32	190.	82	232.	95
44	37	31	191.	89	234.	25
44	37	30	192.	76	235.	32
44	37	29	193.	47	236.	18
44	37	28	194.	04	236.	88
44	37	27	194.	47	237.	41
44	37	26	194.	81	237.	82
44	37	25	195.	05	238.	11

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D	DB	DH	AG	pts	WG	pts
44	37	24	195.	21	238.	31
44	38	37	181.	99	222.	17
44	38	36	185.	05	225.	91
44	38	35	187.	71	229.	16
44	38	34	190.	02	231.	98
44	38	33	192.	02	234.	42
44	38	32	193.	75	236.	53
44	38	31	195.	24	238.	34
44	38	30	196.	50	239.	89
44	38	29	197.	58	241.	20
44	38	28	198.	50	242.	32
44	38	27	199.	27	243.	26
44	38	26	199.	91	244.	04
44	38	25	200.	46	244.	71
44	39	37	181.	73	221.	85
44	39	36	185.	45	226.	40
44	39	35	188.	72	230.	39
44	39	34	191.	59	233.	89
44	39	33	194.	11	236.	97
44	39	32	196.	32	239.	67
44	39	31	198.	26	242.	03
44	39	30	199.	95	244.	10
44	39	29	201.	43	245.	90
44	39	28	202.	72	247.	48
44	39	27	203.	85	248.	86

F 3

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
44	39	26	204.	83	250.	06
44	40	36	185.	23	226.	13
44	40	35	189.	17	230.	94
44	40	34	192.	66	235.	19
44	40	33	195.	74	238.	96
44	40	32	198.	48	242.	31
44	40	31	200.	91	245.	27
44	40	30	203.	06	247.	90
44	40	29	204.	96	250.	22
44	40	28	206.	67	252.	30
44	40	27	208.	18	254.	14
44	40	26	209.	52	255.	78
44	41	35	188.	98	230.	71
44	41	34	193.	15	235.	79
44	41	33	196.	86	240.	32
44	41	32	200.	17	244.	37
44	41	31	203.	14	247.	98
44	41	30	205.	79	251.	22
44	41	29	208.	16	254.	12
44	41	28	210.	30	256.	73
44	41	27	212.	26	259.	08
44	42	34	192.	98	235.	59
44	42	33	197.	38	240.	96
44	42	32	201.	33	245.	78
44	42	31	204.	87	250.	11



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	D	DB	DH	AG	ps	WG	ps
06	44	42	30	208.	07	254.	01
3	44	42	29	210.	95	257.	53
04	44	42	28	213.	56	260.	71
9	44	43	33	197.	22	240.	77
06	44	43	32	201.	87	246.	42
I	44	43	31	206.	06	251.	55
7	44	43	30	209.	85	256.	18
00	44	43	29	213.	29	260.	38
2	44	43	28	216.	41	264.	19
0	44	44	32	201.	71	246.	25
4	44	44	31	206.	61	252.	23
8	44	44	30	211.	06	257.	65
71	44	44	29	215.	10	262.	59
79	45	38	37	196.	68	240.	11
2	45	38	36	199.	05	242.	99
7	45	38	35	201.	08	245.	47
8	45	38	34	202.	81	247.	59
22	45	38	33	204.	28	249.	38
2	45	38	32	205.	52	250.	90
73	45	38	31	206.	56	252.	16
08	45	38	30	207.	41	253.	20
9	45	38	29	208.	11	254.	04
06	45	38	28	208.	67	254.	74
8	45	38	27	209.	10	255.	27
1	45	38	26	209.	44	255.	69

( 56 )

D	DB	DH	AG	pts	WG	pts
45	38	25	209.	70	255.	99
45	39	38	194.	12	236.	98
45	39	37	197.	49	241.	09
45	39	36	200.	42	244.	67
45	39	35	203.	00	247.	81
45	39	34	205.	23	250.	54
45	39	33	207.	17	252.	91
45	39	32	208.	85	254.	96
45	39	31	210.	30	256.	73
45	39	30	211.	55	258.	25
45	39	29	212.	61	259.	55
45	39	28	213.	52	260.	66
45	39	27	214.	29	261.	60
45	39	26	214.	94	262.	40
45	40	37	197.	71	241.	36
45	40	36	201.	29	245.	73
45	40	35	204.	44	249.	58
45	40	34	207.	22	252.	98
45	40	33	209.	68	255.	97
45	40	32	211.	84	258.	61
45	40	31	213.	73	260.	92
45	40	30	215.	40	262.	95
45	40	29	216.	86	264.	74
45	40	28	218.	14	266.	30
45	40	27	219.	27	267.	68

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D	DB	DH	AG	ps	WG	pts
45	40	26	220.	26	268.	89
45	41	36	201.	56	246.	07
45	41	35	205.	37	250.	71
45	41	34	208.	74	254.	83
45	41	33	211.	75	258.	50
45	41	32	214.	42	261.	76
45	41	31	216.	80	264.	67
45	41	30	218.	92	267.	25
45	41	29	220.	81	269.	56
45	41	28	222.	50	271.	62
45	41	27	224.	00	273.	46
45	42	35	205.	67	251.	08
45	42	34	209.	71	256.	01
45	42	33	213.	31	260.	41
45	42	32	216.	55	264.	37
45	42	31	219.	46	267.	91
45	42	30	222.	07	271.	10
45	42	29	224.	42	273.	96
45	42	28	226.	53	276.	55
45	43	34	210.	05	256.	42
45	43	33	214.	32	261.	64
45	43	32	218.	17	266.	33
45	43	31	221.	65	270.	58
45	43	30	224.	79	274.	41
45	43	29	227.	63	277.	88

( 58 )

<u>D</u>	<u>DB</u>	<u>DH</u>	<u>AG</u>	<u>pts</u>	<u>WG</u>	<u>pts</u>
45	43	28	230.	22	281.	05
45	44	33	214.	68	262.	07
45	44	32	219.	20	267.	60
45	44	31	223.	29	272.	59
45	44	30	227.	02	277.	14
45	44	29	230.	48	281.	37
45	45	32	219.	57	268.	04
45	45	31	224.	35	273.	86
45	45	30	228.	70	279.	21

THE

T H E

Second Cask-Gauging

## T A B L E.

**I**N the former Table, the Contents of such Casks as lie within the prescribed limits, do offer themselves upon view; here they are to be found out by Addition and Multiplication. The former Table for this reason seems to be more useful and easie; yet in regard it is calculated only for Diameters of whole Numbers, and likewise subject to several Limitations it is in this respect defective. Now the second Table supplies that Defect, being calculated as well for Diameters of whole Numbers, as for Diameters of whole Numbers and their decimal

mal Parts: And it is the most perfect and exact Table that was ever heretofore extant upon this Subject, and I believe that no Person, when the Usefulness of it is made known to him (if he understand but so much of Arithmetick as Addition and Multiplication) will be without it.

By this Table not only the Contents of Casks, but likewise of all Cylindrical Vessels (from a Diameter of six Inches and its decimal Parts to a Diameter of sixty Inches and its decimal Parts) are easily found out.

*How to find out the Content of a Cask by this Table.*

Whereas in the former Table you are to find the Diagonal and the two Diameters: Here you are to find the Length of the Cask, and the two Diameters, which being found then search the

the Table for the Diameter at the Bung in the first Column, and set down the Numbers in the third Column answering that Diameter, then search the Table for the Diameter at the Head in the first Column, and set down the Numbers in the second Column answering that Diameter. The Sum of these two Numbers multiplied by the Length of the Vessel, gives the Content in Ale Gallons and their decimal Parts whereof 10000 make a Gallon. As in the following Example.

*Diam. Bung* 24. 5 — 1. 1148

*Diam. Head* 22. 6 — 0. 4743

---

*Sum* 1. 5891

*Length of the Vessel* — 30. 5

---

48 Gall. and almost  $\frac{1}{2}$  — 48. 46755

How to find out the Content of  
a cylindrical Cask by this Table.

G

When

When you have found the Length and Diameter of this Vessel, search for your Diameter in the first Column and set down the Numbers in the second and third Column answering that Diameter, the Sum of these two Numbers multiplied by the Length of the Vessel gives the Content in Ale-Gallons and their decimal Parts, as in the following Example.

$$\begin{array}{r}
 \text{Diam. } 32.6 \quad \left\{ \begin{array}{l} 0.9870 \\ 1.9740 \end{array} \right. \\
 \hline
 \text{Sum} \quad 2.9610 \\
 \text{Length of the Vessel} \quad \text{---} \quad 40 \\
 \hline
 118.4400 \\
 118 \text{ Gallons and less than half a} \\
 \text{Galon, but above } \frac{1}{3}.
 \end{array}$$

How to find out the Length of a Cask by the Diagonal and Diameters, and more exactly than you can measure it upon the Cask.

From



From the Square of the Diagonal, subtract the square of half the Sum of the Diameters, the square Root of the Remainder being doubled, gives the Length of the Cask.

*For Example.*

*Diagonal—30*

*Diam. at Bung—25 }  $\frac{1}{2}$  Sum 24*

*Diam. at Head—23 }*

*The Square of the Diagonal—900*

*The Square of half the Sum—576*

*The Difference—324*

The Root of the Difference 18  
being doubled is 36 the Length  
of the Cask.

G 2

How

*How to turn Ale-Gallons into Wine Gallons, and Wine-Gallons into Ale-Gallons. Say,*

As 77. is to 94 :: So is the Number of Ale Gallons given, to the Number of Wine-Gallons required.

And as 94. is to 77 :: So is the Number of Wine Gallons given, to the Number of Ale Gallons required.

Thus 60 Gallons of Ale, will be 73 Gallons and a Quart of Wine: And so much of Wine will be 60 of Ale.

$$77. 94 :: 60. 73. 25.$$

$$94. 77 :: 73. 25. 60.$$

*Diam.*

## ( 65 )

Diam.		Head		Bang	
06.	0	00.	0334	00.	0668
06.	1	00.	0345	00.	0690
06.	2	00.	0357	00.	0714
06.	3	00.	0368	00.	0736
06.	4	00.	0380	00.	0760
06.	5	00.	0392	00.	0784
06.	6	00.	0404	00.	0809
06.	7	00.	0416	00.	0833
06.	8	00.	0429	00.	0858
06.	9	00.	0442	00.	0884
07.	0	00.	0455	00.	0910
07.	1	00.	0468	00.	0936
07.	2	00.	0481	00.	0962
07.	3	00.	0494	00.	0989
07.	4	00.	0508	00.	1017
07.	5	00.	0522	00.	1044
07.	6	00.	0536	00.	1072
07.	7	00.	0550	00.	1100
07.	8	00.	0565	00.	1130
07.	9	00.	0579	00.	1159
08.	0	00.	0594	00.	1188
08.	1	00.	0609	00.	1218
08.	2	00.	0624	00.	1248
08.	3	00.	0639	00.	1279
08.	4	00.	0655	00.	1310

G 3

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
08.	5	00.	0671	00.	1342
08.	6	00.	0686	00.	1373
08.	7	00.	0703	00.	1405
08.	8	00.	0719	00.	1438
08.	9	00.	0735	00.	1471
09.	0	00.	0752	00.	1504
09.	1	00.	0769	00.	1538
09.	2	00.	0786	00.	1572
09.	3	00.	0803	00.	1606
09.	4	00.	0820	00.	1641
09.	5	00.	0838	00.	1676
09.	6	00.	0855	00.	1711
09.	7	00.	0873	00.	1747
09.	8	00.	0891	00.	1782
09.	9	00.	0910	00.	1820
10.	0	00.	0928	00.	1857
10.	1	00.	0947	00.	1894
10.	2	00.	0966	00.	1932
10.	3	00.	0985	00.	1970
10.	4	00.	1004	00.	2009
10.	5	00.	1023	00.	2047
10.	6	00.	1043	00.	2087
10.	7	00.	1063	00.	2126
10.	8	00.	1083	00.	2166
10.	9	00.	1103	00.	2206

## ( 67 )

Diam.		Head		Bung	
11.	0	00.	1123	00.	2246
11.	1	00.	1144	00.	2288
11.	2	00.	1165	00.	2330
11.	3	00.	1185	00.	2371
11.	4	00.	1206	00.	2413
11.	5	00.	1228	00.	2456
11.	6	00.	1249	00.	2499
11.	7	00.	1271	00.	2542
11.	8	00.	1293	00.	2586
11.	9	00.	1315	00.	2630
12.	0	00.	1337	00.	2674
12.	1	00.	1359	00.	2719
12.	2	00.	1382	00.	2764
12.	3	00.	1405	00.	2810
12.	4	00.	1428	00.	2856
12.	5	00.	1451	00.	2902
12.	6	00.	1474	00.	2948
12.	7	00.	1497	00.	2995
12.	8	00.	1521	00.	3043
12.	9	00.	1545	00.	3091
13.	0	00.	1569	00.	3139
13.	1	00.	1593	00.	3187
13.	2	00.	1618	00.	3236
13.	3	00.	1642	00.	3285
13.	4	00.	1667	00.	3335

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
13.	5	00.	1692	00.	3385
13.	6	00.	1717	00.	3435
13.	7	00.	1743	00.	3486
13.	8	00.	1768	00.	3537
13.	9	00.	1794	00.	3588
14.	0	00.	1820	00.	3640
14.	1	00.	1846	00.	3692
14.	2	00.	1872	00.	3744
14.	3	00.	1899	00.	3798
14.	4	00.	1925	00.	3851
14.	5	00.	1952	00.	3904
14.	6	00.	1979	00.	3959
14.	7	00.	2006	00.	4013
14.	8	00.	2034	00.	4068
14.	9	00.	2061	00.	4123
15.	0	00.	2089	00.	4179
15.	1	00.	2117	00.	4235
15.	2	00.	2145	00.	4290
15.	3	00.	2174	00.	4348
15.	4	00.	2202	00.	4405
15.	5	00.	2231	00.	4462
15.	6	00.	2260	00.	4520
15.	7	00.	2289	00.	4578
15.	8	00.	2318	00.	4637
15.	9	00.	2347	00.	4695

## ( 69 )

Diam.		Head		Bung	
16.	0	00.	2377	00.	4755
16.	1	00.	2407	00.	4814
16.	2	00.	2438	00.	4877
16.	3	00.	2467	00.	4935
16.	4	00.	2497	00.	4995
16.	5	00.	2528	00.	5056
16.	6	00.	2559	00.	5118
16.	7	00.	2590	00.	5180
16.	8	00.	2621	00.	5242
16.	9	00.	2652	00.	5305
17.	0	00.	2684	00.	5368
17.	1	00.	2715	00.	5431
17.	2	00.	2747	00.	5495
17.	3	00.	2779	00.	5559
17.	4	00.	2811	00.	5623
17.	5	00.	2844	00.	5688
17.	6	00.	2876	00.	5753
17.	7	00.	2909	00.	5818
17.	8	00.	2942	00.	5885
17.	9	00.	2975	00.	5951
18.	0	00.	3009	00.	6018
18.	1	00.	3042	00.	6085
18.	2	00.	3076	00.	6152
18.	3	00.	3110	00.	6220
18.	4	00.	3144	00.	6288

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
13.	5	00.	1692	00.	3385
13.	6	00.	1717	00.	3435
13.	7	00.	1743	00.	3486
13.	8	00.	1768	00.	3537
13.	9	00.	1794	00.	3588
14.	0	00.	1820	00.	3640
14.	1	00.	1846	00.	3692
14.	2	00.	1872	00.	3744
14.	3	00.	1899	00.	3798
14.	4	00.	1925	00.	3851
14.	5	00.	1952	00.	3904
14.	6	00.	1979	00.	3959
14.	7	00.	2006	00.	4013
14.	8	00.	2034	00.	4068
14.	9	00.	2061	00.	4123
15.	0	00.	2089	00.	4179
15.	1	00.	2117	00.	4235
15.	2	00.	2145	00.	4290
15.	3	00.	2174	00.	4348
15.	4	00.	2202	00.	4405
15.	5	00.	2231	00.	4462
15.	6	00.	2260	00.	4520
15.	7	00.	2289	00.	4578
15.	8	00.	2318	00.	4637
15.	9	00.	2347	00.	4695



## ( 69 )

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
16.	0	00.	2377	00.	4755
16.	1	00.	2407	00.	4814
16.	2	00.	2438	00.	4877
16.	3	00.	2467	00.	4935
16.	4	00.	2497	00.	4995
16.	5	00.	2528	00.	5056
16.	6	00.	2559	00.	5118
16.	7	00.	2590	00.	5180
16.	8	00.	2621	00.	5242
16.	9	00.	2652	00.	5305
17.	0	00.	2684	00.	5368
17.	1	00.	2715	00.	5431
17.	2	00.	2747	00.	5495
17.	3	00.	2779	00.	5559
17.	4	00.	2811	00.	5623
17.	5	00.	2844	00.	5688
17.	6	00.	2876	00.	5753
17.	7	00.	2909	00.	5818
17.	8	00.	2942	00.	5885
17.	9	00.	2975	00.	5951
18.	0	00.	3009	00.	6018
18.	1	00.	3042	00.	6085
18.	2	00.	3076	00.	6152
18.	3	00.	3110	00.	6220
18.	4	00.	3144	00.	6288

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Diam.		Head		Bung
18.	5	00.	3178	00. 6357
18.	6	00.	3213	00. 6426
18.	7	00.	3247	00. 6495
18.	8	00.	3282	00. 6565
18.	9	00.	3317	00. 6635
19.	0	00.	3352	00. 6705
19.	1	00.	3388	00. 6776
19.	2	00.	3423	00. 6847
19.	3	00.	3459	00. 6918
19.	4	00.	3495	00. 6990
19.	5	00.	3531	00. 7063
19.	6	00.	3567	00. 7135
19.	7	00.	3604	00. 7208
19.	8	00.	3641	00. 7282
19.	9	00.	3677	00. 7355
20.	0	00.	3715	00. 7429
20.	1	00.	3752	00. 7504
20.	2	00.	3789	00. 7579
20.	3	00.	3825	00. 7651
20.	4	00.	3865	00. 7730
20.	5	00.	3903	00. 7806
20.	6	00.	3941	00. 7882
20.	7	00.	3979	00. 7958
20.	8	00.	4018	00. 8036
20.	9	00.	4056	00. 8113

## ( 71 )

Diam.		Head		Bung	
21.	0	00.	4095	00.	8191
21.	1	00.	4134	00.	8269
21.	2	00.	4173	00.	8347
21.	3	00.	4213	00.	8427
21.	4	00.	4253	00.	8506
21.	5	00.	4293	00.	8586
21.	6	00.	4333	00.	8666
21.	7	00.	4373	00.	8746
21.	8	00.	4413	00.	8827
21.	9	00.	4454	00.	8908
22.	0	00.	4495	00.	8990
22.	1	00.	4536	00.	9072
22.	2	00.	4577	00.	9154
22.	3	00.	4618	00.	9237
22.	4	00.	4661	00.	9324
22.	5	00.	4701	00.	9403
22.	6	00.	4743	00.	9487
22.	7	00.	4785	00.	9571
22.	8	00.	4824	00.	9649
22.	9	00.	4870	00.	9740
23.	0	00.	4913	00.	9826
23.	1	00.	4955	00.	9911
23.	2	00.	4998	00.	9997
23.	3	01.	5042	00.	0084
23.	4	01.	5085	00.	0170

Diam.		Head		Bung	
23.	5	00.	5128	01.	0257
23.	6	00.	5172	01.	0345
23.	7	00.	5216	01.	0433
23.	8	00.	5260	01.	0521
23.	9	00.	5305	01.	0610
24.	0	00.	5348	01.	0696
24.	1	00.	5394	01.	0788
24.	2	00.	5439	01.	0878
24.	3	00.	5484	01.	0968
24.	4	00.	5529	01.	1058
24.	5	00.	5574	01.	1148
24.	6	00.	5619	01.	1239
24.	7	00.	5666	01.	1332
24.	8	00.	5712	01.	1424
24.	9	00.	5758	01.	1516
25.	0	00.	5804	01.	1609
25.	1	00.	5851	01.	1702
25.	2	00.	5897	01.	1795
25.	3	00.	5944	01.	1889
25.	4	00.	5991	01.	1983
25.	5	00.	6039	01.	2078
25.	6	00.	6086	01.	2173
25.	7	00.	6134	01.	2268
25.	8	00.	6182	01.	2364
25.	9	00.	6230	01.	2460

( 73 )

Diam.		Head		Bung	
26.	0	00.	6278	01.	2556
26.	1	00.	6326	01.	2653
26.	2	00.	6375	01.	2750
26.	3	00.	6423	01.	2846
26.	4	00.	6472	01.	2945
26.	5	00.	6522	01.	3044
26.	6	00.	6571	01.	3142
26.	7	00.	6620	01.	3241
26.	8	00.	6670	01.	3341
26.	9	00.	6720	01.	3440
27.	0	00.	6770	01.	3541
27.	1	00.	6820	01.	3641
27.	2	00.	6871	01.	3742
27.	3	00.	6921	01.	3843
27.	4	00.	6972	01.	3944
27.	5	00.	7023	01.	4047
27.	6	00.	7074	01.	4149
27.	7	00.	7126	01.	4252
27.	8	00.	7177	01.	4355
27.	9	00.	7229	01.	4458
28.	0	00.	7281	01.	4562
28.	1	00.	7333	01.	4666
28.	2	00.	7385	01.	4771
28.	3	00.	7438	01.	4876
28.	4	00.	7490	01.	4981

H

Diam.		Head		Bung	
28.	5	00.	7543	01.	5087
28.	6	00.	7596	01.	5193
28.	7	00.	7649	01.	5299
28.	8	00.	7703	01.	5406
28.	9	00.	7756	01.	5513
29.	0	00.	7810	01.	5621
29.	1	00.	7864	01.	5729
29.	2	00.	7918	01.	5837
29.	3	00.	7973	01.	5946
29.	4	00.	8027	01.	6055
29.	5	00.	8082	01.	6164
29.	6	00.	8137	01.	6274
29.	7	00.	8192	01.	6384
29.	8	00.	8247	01.	6494
29.	9	00.	8303	01.	6606
30.	0	00.	8358	01.	6717
30.	1	00.	8414	01.	6828
30.	2	00.	8470	01.	6940
30.	3	00.	8526	01.	7053
30.	4	00.	8583	01.	7166
30.	5	00.	8639	01.	7279
30.	6	00.	8696	01.	7392
30.	7	00.	8753	01.	7506
30.	8	00.	8810	01.	7620
30.	9	00.	8867	01.	7734

## ( 75 )

Diam.		Head		Bung	
31.	0	00.	8925	01.	7850
31.	1	00.	8982	01.	7965
31.	2	00.	9040	01.	8081
31.	3	00.	9099	01.	8198
31.	4	00.	9157	01.	8314
31.	5	00.	9215	01.	8430
31.	6	00.	9274	01.	8548
31.	7	00.	9332	01.	8665
31.	8	00.	9391	01.	8783
31.	9	00.	9450	01.	8901
32.	0	00.	9510	01.	9020
32.	1	00.	9569	01.	9139
32.	2	00.	9629	01.	9259
32.	3	00.	9689	01.	9378
32.	4	00.	9749	01.	9499
32.	5	00.	9809	01.	9619
32.	6	00.	9870	01.	9740
32.	7	00.	9930	01.	9861
32.	8	00.	9991	01.	9983
32.	9	01.	0052	02.	0105
33.	0	01.	0113	02.	0227
33.	1	01.	0175	02.	0350
33.	2	01.	0237	02.	0473
33.	3	01.	0298	02.	0597
33.	4	01.	0360	02.	0721

Diam.		Head		Bung	
33.	5	01.	0422	02.	0845
33.	6	01.	0484	02.	0967
33.	7	01.	0547	02.	1095
33.	8	01.	0610	02.	1220
33.	9	01.	0673	02.	1347
34.	0	01.	0736	02.	1472
34.	1	01.	0799	02.	1598
34.	2	01.	0863	02.	1725
34.	3	01.	0926	02.	1853
34.	4	01.	0990	02.	1980
34.	5	01.	1054	02.	2108
34.	6	01.	1118	02.	2257
34.	7	01.	1182	02.	2365
34.	8	01.	1246	02.	2493
34.	9	01.	1312	02.	2624
35.	0	01.	1377	02.	2754
35.	1	01.	1442	02.	2884
35.	2	01.	1507	02.	3014
35.	3	01.	1573	02.	3145
35.	4	01.	1638	02.	3277
35.	5	01.	1704	02.	3408
35.	6	01.	1770	02.	3539
35.	7	01.	1836	02.	3673
35.	8	01.	1903	02.	3806
35.	9	01.	1969	02.	3939



## ( 77 )

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
36.	0	01.	2036	02.	4072
36.	1	01.	2103	02.	4206
36.	2	01.	2170	02.	4341
36.	3	01.	2237	02.	4475
36.	4	01.	2305	02.	4610
36.	5	01.	2373	02.	4746
36.	6	01.	2441	02.	4882
36.	7	01.	2509	02.	5018
36.	8	01.	2577	02.	5154
36.	9	01.	2645	02.	5291
37.	0	01.	2714	02.	5428
37.	1	01.	2782	02.	5565
37.	2	01.	2852	02.	5704
37.	3	01.	2921	02.	5842
37.	4	01.	2990	02.	5980
37.	5	01.	3060	02.	6120
37.	6	01.	3130	02.	6260
37.	7	01.	3200	02.	6400
37.	8	01.	3270	02.	6540
37.	9	01.	3340	02.	6681
38.	0	01.	3411	02.	6822
38.	1	01.	3481	02.	6962
38.	2	01.	3552	02.	7105
38.	3	01.	3623	02.	7247
38.	4	01.	3694	02.	7388

H<sub>3</sub>

<i>Diam.</i>		<i>Head</i>	<i>Bung</i>
38.	5	01. 3766	02. 7532
38.	6	01. 3837	02. 7675
38.	7	01. 3909	02. 7818
38.	8	01. 3981	02. 7963
38.	9	01. 4053	02. 8107
39.	0	01. 4126	02. 8252
39.	1	01. 4198	02. 8397
39.	2	01. 4271	02. 8542
39.	3	01. 4344	02. 8688
39.	4	01. 4417	02. 8834
39.	5	01. 4490	02. 8981
39.	6	01. 4564	02. 9128
39.	7	01. 4637	02. 9275
39.	8	01. 4711	02. 9423
39.	9	01. 4785	02. 9571
40.	0	01. 4859	02. 9719
40.	1	01. 4934	02. 9868
40.	2	01. 5008	03. 0017
40.	3	01. 5083	03. 0167
40.	4	01. 5158	03. 0317
40.	5	01. 5233	03. 0466
40.	6	01. 5309	03. 0617
40.	7	01. 5384	03. 0768
40.	8	01. 5460	03. 0920
40.	9	01. 5536	03. 1072

<i>Diam.</i>		<i>Head</i>	<i>Bung</i>
41.	0	01. 5612	03. 1224
41.	1	01. 5688	03. 1376
41.	2	01. 5764	03. 1529
41.	3	01. 5841	03. 1682
41.	4	01. 5918	03. 1836
41.	5	01. 5995	03. 1990
41.	6	01. 6072	03. 2144
41.	7	01. 6149	03. 2299
41.	8	01. 6227	03. 2454
41.	9	01. 6305	03. 2610
42.	0	01. 6383	03. 2765
42.	1	01. 6461	03. 2922
42.	2	01. 6539	03. 3078
42.	3	01. 6617	03. 3235
42.	4	01. 6696	03. 3393
42.	5	01. 6775	03. 3550
42.	6	01. 6854	03. 3708
42.	7	01. 6933	03. 3867
42.	8	01. 7013	03. 4026
42.	9	01. 7092	03. 4185
43.	0	01. 7172	03. 4344
43.	1	01. 7252	03. 4504
43.	2	01. 7332	03. 4665
43.	3	01. 7412	03. 4825
43.	4	01. 7493	03. 4986

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
43.	5	01.	7574	03.	5148
43.	6	01.	7655	03.	5309
43.	7	01.	7736	03.	5472
43.	8	01.	7817	03.	5634
43.	9	01.	7898	03.	5797
44.	0	01.	7980	03.	5960
44.	1	01.	8062	03.	6124
44.	2	01.	8144	03.	6288
44.	3	01.	8226	03.	6452
44.	4	01.	8308	03.	6617
44.	5	01.	8391	03.	6782
44.	6	01.	8474	03.	6948
44.	7	01.	8557	03.	7114
44.	8	01.	8640	03.	7280
44.	9	01.	8724	03.	7449
45.	0	01.	8807	03.	7613
45.	1	01.	8890	03.	7781
45.	2	01.	8974	03.	7948
45.	3	01.	9058	03.	8117
45.	4	01.	9142	03.	8285
45.	5	01.	9227	03.	8454
45.	6	01.	9311	03.	8623
45.	7	01.	9394	03.	8788
45.	8	01.	9481	03.	8963
45.	9	01.	9566	03.	9133

## ( 81 )

Diam.		Head		Bung	
46.	0	01.	9652	03.	9304
46.	1	01.	9737	03.	9475
46.	2	01.	9823	03.	9646
46.	3	01.	9909	03.	9818
46.	4	01.	9995	03.	9990
46.	5	02.	0080	04.	0161
46.	6	02.	0168	04.	0336
46.	7	02.	0254	04.	0509
46.	8	02.	0341	04.	0683
46.	9	02.	0428	04.	0857
47.	0	02.	0515	04.	1031
47.	1	02.	0603	04.	1206
47.	2	02.	0690	04.	1381
47.	3	02.	0778	04.	1557
47.	4	02.	0866	04.	1733
47.	5	02.	0954	04.	1909
47.	6	02.	1043	04.	2086
47.	7	02.	1131	04.	2263
47.	8	02.	1220	04.	2440
47.	9	02.	1309	04.	2618
48.	0	02.	1398	04.	2796
48.	1	02.	1487	04.	2974
48.	2	02.	1576	04.	3153
48.	3	02.	1666	04.	3332
48.	4	02.	1756	04.	3512

<i>Diam.</i>		<i>Head</i>		<i>Bung</i>	
48.	5	02.	1846	04.	3692
48.	6	02.	1936	04.	3872
48.	7	02.	2026	04.	4053
48.	8	02.	2117	04.	4234
48.	9	02.	2208	04.	4416
49.	0	02.	2299	04.	4598
49.	1	02.	2390	04.	4780
49.	2	02.	2481	04.	4962
49.	3	02.	2573	04.	5145
49.	4	02.	2664	04.	5329
49.	5	02.	2756	04.	5512
49.	6	02.	2848	04.	5697
49.	7	02.	2940	04.	5881
49.	8	02.	3032	04.	6065
49.	9	02.	3125	04.	6251
50.	0	02.	3218	04.	6436
50.	1	02.	3311	04.	6622
50.	2	02.	3404	04.	6809
50.	3	02.	3498	04.	6995
50.	4	02.	3591	04.	7182
50.	5	02.	3685	04.	7370
50.	6	02.	3779	04.	7558
50.	7	02.	3873	04.	7746
50.	8	02.	3967	04.	7934
50.	9	02.	4061	04.	8123

## ( 83 )

<i>Diam.</i>		<i>Head</i>	<i>Bung</i>
51.	0	02. 4156	04. 8313
51.	1	02. 4251	04. 8502
51.	2	02. 4346	04. 8692
51.	3	02. 4441	04. 8883
51.	4	02. 4537	04. 9073
51.	5	02. 4632	04. 9265
51.	6	02. 4728	04. 9456
51.	7	02. 4824	04. 9648
51.	8	02. 4920	04. 9840
51.	9	02. 5016	05. 0033
52.	0	02. 5113	05. 0226
52.	1	02. 5209	05. 0419
52.	2	02. 5306	05. 0613
52.	3	02. 5403	05. 0807
52.	4	02. 5501	05. 1001
52.	5	02. 5598	05. 1196
52.	6	02. 5696	05. 1392
52.	7	02. 5793	05. 1587
52.	8	02. 5891	05. 1783
52.	9	02. 5990	05. 1979
53.	0	02. 6088	05. 2176
53.	1	02. 6186	05. 2373
53.	2	02. 6285	05. 2571
53.	3	02. 6384	05. 2768
53.	4	02. 6483	05. 2967

Diam.		Head		Bung	
53.	5	02.	6582	05.	3165
53.	6	02.	6681	05.	3362
53.	7	02.	6782	05.	3563
53.	8	02.	6881	05.	3763
53.	9	02.	6981	05.	3963
54.	0	02.	7082	05.	4164
54.	1	02.	7182	05.	4364
54.	2	02.	7283	05.	4566
54.	3	02.	7383	05.	4767
54.	4	02.	7484	05.	4969
54.	5	02.	7586	05.	5171
54.	6	02.	7687	05.	5374
54.	7	02.	7788	05.	5577
54.	8	02.	7890	05.	5780
54.	9	02.	7992	05.	5984
55.	0	02.	8094	05.	6188
55.	1	02.	8196	05.	6393
55.	2	02.	8299	05.	6598
55.	3	02.	8401	05.	6803
55.	4	02.	8504	05.	7009
55.	5	02.	8607	05.	7215
55.	6	02.	8710	05.	7421
55.	7	02.	8814	05.	7628
55.	8	02.	8917	05.	7835
55.	9	02.	9021	05.	8042



Diam.		Head		Bung	
56.	0	02.	9125	05.	8250
56.	1	02.	9229	05.	8458
56.	2	02.	9333	05.	8667
56.	3	02.	9438	05.	8876
56.	4	02.	9542	05.	9085
56.	5	02.	9647	05.	9295
56.	6	02.	9752	05.	9505
56.	7	02.	9858	05.	9715
56.	8	02.	9963	05.	9926
56.	9	03.	0069	06.	0137
57.	0	03.	0174	06.	0349
57.	1	03.	0280	06.	0561
57.	2	03.	0386	06.	0773
57.	3	03.	0493	06.	0986
57.	4	03.	0599	06.	1199
57.	5	03.	0706	06.	1412
57.	6	03.	0813	06.	1628
57.	7	03.	0921	06.	1843
57.	8	03.	1027	06.	2055
57.	9	03.	1135	06.	2271
58.	0	03.	1242	06.	2485
58.	1	03.	1350	06.	2701
58.	2	03.	1458	06.	2917
58.	3	03.	1566	06.	3133
58.	4	03.	1675	06.	3350

<i>Diam.</i>		<i>Head</i>		<i>Base</i>	
58.	5	03.	1783	06.	3567
58.	6	03.	1892	06.	3785
58.	7	03.	2001	06.	4003
58.	8	03.	2110	06.	4221
58.	9	03.	2219	06.	4439
59.	0	03.	2329	06.	4658
59.	1	03.	2438	06.	4875
59.	2	03.	2549	06.	5098
59.	3	03.	2659	06.	5318
59.	4	03.	2769	06.	5538
59.	5	03.	2879	06.	5759
59.	6	03.	2990	06.	5980
59.	7	03.	3101	06.	6202
59.	8	03.	3212	06.	6424
59.	9	03.	3323	06.	6646
60.	0	03.	3434	06.	6869
60.	1	03.	3546	06.	7092
60.	2	03.	3658	06.	7315
60.	3	03.	3769	06.	7539
60.	4	03.	3881	06.	7763
60.	5	03.	3994	06.	7988
60.	6	03.	4105	06.	8209
60.	7	03.	4219	06.	8438
60.	8	03.	4332	06.	8664
60.	9	03.	4445	06.	8890

A

A Table for measuring of Boards,  
wherein (from the beginning at  
1 Inch to 12 and their Decimal  
Parts) there is a perfect Table  
for the Decimals of a Foot.

In.	Pts.	Feet	Pts.	In.	Pts.	Feet	Pts.
01.	0	00.	0833	02.	8	00.	2333
01.	1	00.	0916	02.	9	00.	2416
01.	2	00.	1000	03.	0	00.	2500
01.	3	00.	1083	03.	1	00.	2583
01.	4	00.	1166	03.	2	00.	2666
01.	5	00.	1250	03.	3	00.	2750
01.	6	00.	1333	03.	4	00.	2833
01.	7	00.	1416	03.	5	00.	2916
01.	8	00.	1500	03.	6	00.	3000
01.	9	00.	1583	03.	7	00.	3083
02.	0	00.	1666	03.	8	00.	3166
02.	1	00.	1750	03.	9	00.	3250
02.	2	00.	1833	04.	0	00.	3333
02.	3	00.	1916	04.	1	00.	3416
02.	4	00.	2000	04.	2	00.	3500
02.	5	00.	2083	04.	3	00.	3583
02.	6	00.	2166	04.	4	00.	3666
02.	7	00.	2250	04.	5	00.	3750

In.	Pts.	Feet	Pts.	In.	Pts.	Feet	Pts.
04.	6	00.	3833	07.	1	00.	5916
04.	7	00.	3916	07.	2	00.	6000
04.	8	00.	4000	07.	3	00.	6083
04.	9	00.	4083	07.	4	00.	6166
05.	0	00.	4166	07.	5	00.	6250
05.	1	00.	4250	07.	6	00.	6333
05.	2	00.	4333	07.	7	00.	6416
05.	3	00.	4416	07.	8	00.	6500
05.	4	00.	4500	07.	9	00.	6583
05.	5	00.	4583	08.	0	00.	6666
05.	6	00.	4666	08.	1	00.	6750
05.	7	00.	4750	08.	2	00.	6833
05.	8	00.	4833	08.	3	00.	6916
05.	9	00.	4916	08.	4	00.	7000
06.	0	00.	5000	08.	5	00.	7083
06.	1	00.	5083	08.	6	00.	7166
06.	2	00.	5166	08.	7	00.	7250
06.	3	00.	5250	08.	8	00.	7333
06.	4	00.	5333	08.	9	00.	7416
06.	5	00.	5416	09.	0	00.	7500
06.	6	00.	5500	09.	1	00.	7583
06.	7	00.	5583	09.	2	00.	7666
06.	8	00.	5666	09.	3	00.	7750
06.	9	00.	5750	09.	4	00.	7833
07.	0	00.	5833	09.	5	00.	7916

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
09.	6	00.	8000	12.	1	01.	0083
09.	7	00.	8083	12.	2	01.	0166
09.	8	00.	8166	12.	3	01.	0250
09.	9	00.	8250	12.	4	01.	0333
10.	0	00.	8333	12.	5	01.	0416
10.	1	00.	8416	12.	6	01.	0500
10.	2	00.	8500	12.	7	01.	0583
10.	3	00.	8583	12.	8	01.	0666
10.	4	00.	8666	12.	9	01.	0750
10.	5	00.	8750	13.	0	01.	0833
10.	6	00.	8833	13.	1	01.	0916
10.	7	00.	8916	13.	2	01.	1000
10.	8	00.	9000	13.	3	01.	1083
10.	9	00.	9083	13.	4	01.	1166
11.	0	00.	9166	13.	5	01.	1250
11.	1	00.	9250	13.	6	01.	1333
11.	2	00.	9333	13.	7	01.	1416
11.	3	00.	9416	13.	8	01.	1500
11.	4	00.	9500	13.	9	01.	1583
11.	5	00.	9583	14.	0	01.	1666
11.	6	00.	9666	14.	1	01.	1750
11.	7	00.	9750	14.	2	01.	1833
11.	8	00.	9833	14.	3	01.	1916
11.	9	00.	9916	14.	4	01.	2000
12.	0	01.	0000	14.	5	01.	2083

In.	Pts	Fest	Pts.	In.	Pts	Fest	Pts.
14.	6	01.	2166	17.	1	01.	4250
14.	7	01.	2250	17.	2	01.	4333
14.	8	01.	2333	17.	3	01.	4416
14.	9	01.	2416	17.	4	01.	4500
15.	0	01.	2500	17.	5	01.	4583
15.	1	01.	2583	17.	6	01.	4666
15.	2	01.	2666	17.	7	01.	4750
15.	3	01.	2750	17.	8	01.	4833
15.	4	01.	2833	17.	9	01.	4916
15.	5	01.	2916	18.	0	01.	5000
15.	6	01.	3000	18.	1	01.	5083
15.	7	01.	3083	18.	2	01.	5166
15.	8	01.	3166	18.	3	01.	5250
15.	9	01.	3250	18.	4	01.	5333
16.	0	01.	3333	18.	5	01.	5416
16.	1	01.	3416	18.	6	01.	5500
16.	2	01.	3500	18.	7	01.	5583
16.	3	01.	3583	18.	8	01.	5666
16.	4	01.	3666	18.	9	01.	5750
16.	5	01.	3750	19.	0	01.	5833
16.	6	01.	3833	19.	1	01.	5916
16.	7	01.	3916	19.	2	01.	6000
16.	8	01.	4000	19.	3	01.	6083
16.	9	01.	4083	19.	4	01.	6166
17.	0	01.	4166	19.	5	01.	6250

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
19.	6	01.	6333	22.	1	01.	8416
19.	7	01.	6416	22.	2	01.	8500
19.	8	01.	6500	22.	3	01.	8583
19.	9	01.	6583	22.	4	01.	8666
20.	0	01.	6666	22.	5	01.	8750
20.	1	01.	6750	22.	6	01.	8833
20.	2	01.	6833	22.	7	01.	8916
20.	3	01.	6916	22.	8	01.	9000
20.	4	01.	7000	22.	9	01.	9083
20.	5	01.	7083	23.	0	01.	9166
20.	6	01.	7166	23.	1	01.	9250
20.	7	01.	7250	23.	2	01.	9333
20.	8	01.	7333	23.	3	01.	9416
20.	9	01.	7416	23.	4	01.	9500
21.	0	01.	7500	23.	5	01.	9583
21.	1	01.	7583	23.	6	01.	9666
21.	2	01.	7666	23.	7	01.	9750
21.	3	01.	7750	23.	8	01.	9833
21.	4	01.	7833	23.	9	01.	9916
21.	5	01.	7916	24.	0	02.	0000
21.	6	01.	8000	24.	1	02.	0083
21.	7	01.	8083	24.	2	02.	0166
21.	8	01.	8166	24.	3	02.	0250
21.	9	01.	8250	24.	4	02.	0333
22.	0	01.	8333	24.	5	02.	0416

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
24.	6	02.	0500	27.	1	02.	2583
24.	7	02.	0583	27.	2	02.	2666
24.	8	02.	0666	27.	3	02.	2750
24.	9	02.	0750	27.	4	02.	2833
25.	0	02.	0833	27.	5	02.	2916
25.	1	02.	0916	27.	6	02.	3000
25.	2	02.	1000	27.	7	02.	3083
25.	3	02.	1083	27.	8	02.	3166
25.	4	02.	1166	27.	9	02.	3250
25.	5	02.	1250	28.	0	02.	3333
25.	6	02.	1333	28.	1	02.	3416
25.	7	02.	1416	28.	2	02.	3500
25.	8	02.	1500	28.	3	02.	3583
25.	9	02.	1583	28.	4	02.	3666
26.	0	02.	1666	28.	5	02.	3750
26.	1	02.	1750	28.	6	02.	3833
26.	2	02.	1833	28.	7	02.	3916
26.	3	02.	1916	28.	8	02.	4000
26.	4	02.	2000	28.	9	02.	4083
26.	5	02.	2083	29.	0	02.	4166
26.	6	02.	2166	29.	1	02.	4250
26.	7	02.	2250	29.	2	02.	4333
26.	8	02.	2333	29.	3	02.	4416
26.	9	02.	2416	29.	4	02.	4500
27.	0	02.	2500	29.	5	02.	4583



In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
29.	6	02.	4666	32.	1	02.	6750
29.	7	02.	4750	32.	2	02.	6833
29.	8	02.	4833	32.	3	02.	6916
29.	9	02.	4916	32.	4	02.	7000
30.	0	02.	5000	32.	5	02.	7083
30.	1	02.	5083	32.	6	02.	7166
30.	2	02.	5166	32.	7	02.	7250
30.	3	02.	5250	32.	8	02.	7333
30.	4	02.	5333	32.	9	02.	7416
30.	5	02.	5416	33.	0	02.	7500
30.	6	02.	5500	33.	1	02.	7583
30.	7	02.	5583	33.	2	02.	7666
30.	8	02.	5666	33.	3	02.	7750
30.	9	02.	5750	33.	4	02.	7833
31.	0	02.	5833	33.	5	02.	7916
31.	1	02.	5916	33.	6	02.	8000
31.	2	02.	6000	33.	7	02.	8083
31.	3	02.	6083	33.	8	02.	8166
31.	4	02.	6166	33.	9	02.	8250
31.	5	02.	6250	34.	0	02.	8333
31.	6	02.	6333	34.	1	02.	8416
31.	7	02.	6416	34.	2	02.	8500
31.	8	02.	6500	34.	3	02.	8583
31.	9	02.	6583	34.	4	02.	8666
32.	0	02.	6666	34.	5	02.	8750

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
34.	6	02.	8833	35.	4	02.	9500
34.	7	02.	8916	35.	5	02.	9583
34.	8	02.	9000	35.	6	02.	9666
34.	9	02.	9083	35.	7	02.	9750
35.	0	02.	9166	35.	8	02.	9833
35.	1	02.	9250	35.	9	02.	9916
35.	2	02.	9333	36.	0	03.	0000
35.	3	02.	9416				

*The Use of the Table.*

Having found the Breadth of the Board in Inches, or Inches and decimal Parts, search for the same in the Table, which you will find in the first or third Column; and in the opposite Column you will find the Content of one Foot in Length in flat Measure, which multiplied by the whole Length in Feet and decimal Parts gives the Content of the Board.

*For*

*For Example.*

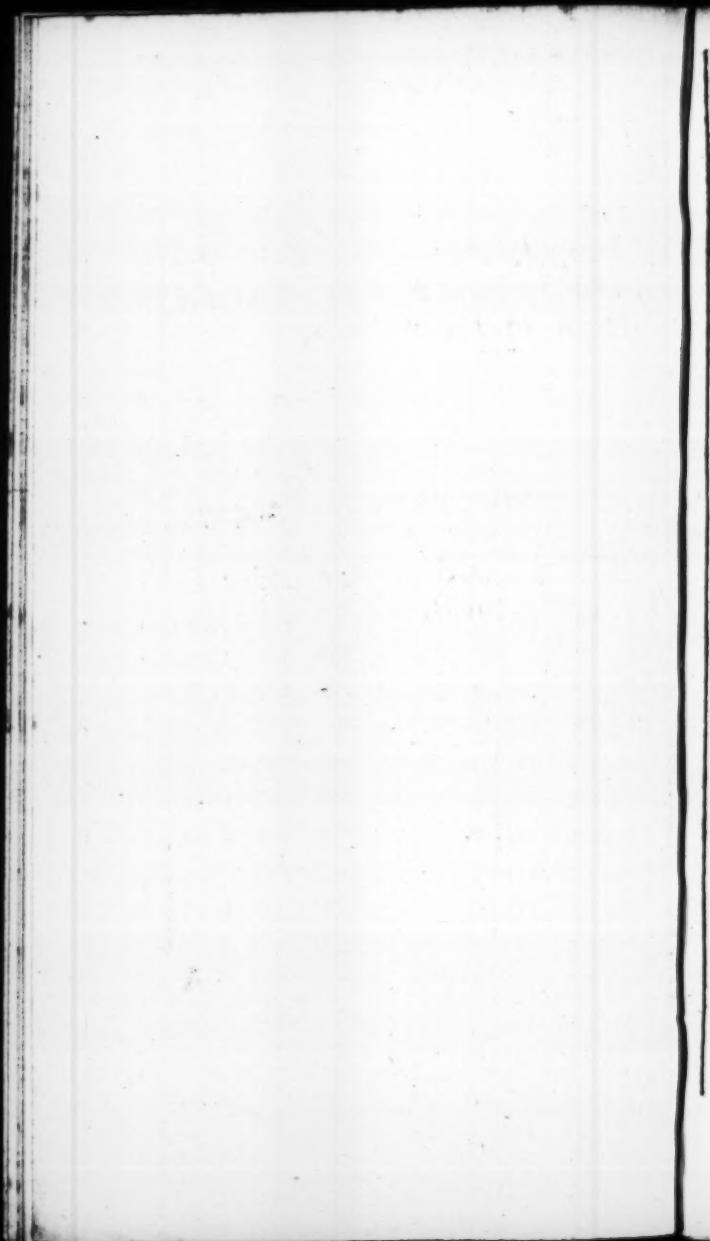
Suppose the Breadth of the Board 11 Inch. 8 Parts, and the Length 12 Feet 7 Parts,

11. 8 *answers* — 0. 9833  
*multiplied by* ——— 12. 7

*gives the Content* — 12. 4879

If the Board prove broader at one end than the other, take the Arithmetical Mean, that is, one half of the Sum of the 2 Breadths and work as before.

**A**



A Table of Timber-Measure,  
 shewing the Solidity of one Foot  
 in Length of Timber truly squar-  
 ed, from one Inch square, to  
 36 and their decimal Parts.

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
01.	0	0.	0069	02.	8	0.	0544
01.	1	0.	0084	02.	9	0.	0584
01.	2	0.	0100	03.	0	0.	0625
01.	3	0.	0117	03.	1	0.	0667
01.	4	0.	0136	03.	2	0.	0711
01.	5	0.	0156	03.	3	0.	0756
01.	6	0.	0177	03.	4	0.	0802
01.	7	0.	0200	03.	5	0.	0850
01.	8	0.	0225	03.	6	0.	0900
01.	9	0.	0250	03.	7	0.	0950
02.	0	0.	0277	03.	8	0.	1002
02.	1	0.	0306	03.	9	0.	1056
02.	2	0.	0336	04.	0	0.	1111
02.	3	0.	0367	04.	1	0.	1167
02.	4	0.	0400	04.	2	0.	1225
02.	5	0.	0434	04.	3	0.	1284
02.	6	0.	0469	04.	4	0.	1344
02.	7	0.	0506	04.	5	0.	1406

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
04.	6	0.	1469	07.	1	0.	3500
04.	7	0.	1534	07.	2	0.	3600
04.	8	0.	1600	07.	3	0.	3700
04.	9	0.	1667	07.	4	0.	3802
05.	0	0.	1736	07.	5	0.	3906
05.	1	0.	1806	07.	6	0.	4011
05.	2	0.	1877	07.	7	0.	4117
05.	3	0.	1950	07.	8	0.	4225
05.	4	0.	2025	07.	9	0.	4334
05.	5	0.	2100	08.	0	0.	4444
05.	6	0.	2177	08.	1	0.	4556
05.	7	0.	2256	08.	2	0.	4669
05.	8	0.	2336	08.	3	0.	4784
05.	9	0.	2417	08.	4	0.	4900
06.	0	0.	2500	08.	5	0.	5017
06.	1	0.	2584	08.	6	0.	5136
06.	2	0.	2669	08.	7	0.	5256
06.	3	0.	2756	08.	8	0.	5377
06.	4	0.	2844	08.	9	0.	5500
06.	5	0.	2934	09.	0	0.	5625
06.	6	0.	3025	09.	1	0.	5750
06.	7	0.	3117	09.	2	0.	5877
06.	8	0.	3211	09.	3	0.	6006
06.	9	0.	3306	09.	4	0.	6136
07.	0	0.	3402	09.	5	0.	6267

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
09.	6	c.	6400	12.	1	I.	0167
09.	7	c.	6534	12.	2	I.	0336
09.	8	c.	6669	12.	3	I.	0506
09.	9	c.	6806	12.	4	I.	0677
10.	0	c.	6944	12.	5	I.	0850
10.	1	c.	7084	12.	6	I.	1024
10.	2	c.	7225	12.	7	I.	1200
10.	3	c.	7367	12.	8	I.	1377
10.	4	c.	7511	12.	9	I.	1556
10.	5	c.	7656	13.	0	I.	1736
10.	6	c.	7802	13.	1	I.	1917
10.	7	c.	7950	13.	2	I.	2100
10.	8	c.	8100	13.	3	I.	2284
10.	9	c.	8250	13.	4	I.	2469
11.	0	c.	8402	13.	5	I.	2656
11.	1	c.	8556	13.	6	I.	2844
11.	2	c.	8711	13.	7	I.	3034
11.	3	c.	8867	13.	8	I.	3225
11.	4	c.	9025	13.	9	I.	3417
11.	5	c.	9184	14.	0	I.	3611
11.	6	c.	9344	14.	1	I.	3806
11.	7	c.	9506	14.	2	I.	4002
11.	8	c.	9669	14.	3	I.	4200
11.	9	c.	9834	14.	4	I.	4400
12.	0	I.	0000	14.	5	I.	4600

## ( 100 )

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
14. 6		1. 4802		17. 1		2. 0306	
14. 7		1. 5006		17. 2		2. 0544	
14. 8		1. 5211		17. 3		2. 0784	
14. 9		1. 5417		17. 4		2. 1025	
15. 0		1. 5625		17. 5		2. 1267	
15. 1		1. 5834		17. 6		2. 1511	
15. 2		1. 6044		17. 7		2. 1756	
15. 3		1. 6256		17. 8		2. 2002	
15. 4		1. 6469		17. 9		2. 2250	
15. 5		1. 6684		18. 0		2. 2500	
15. 6		1. 6900		18. 1		2. 2750	
15. 7		1. 7117		18. 2		2. 3002	
15. 8		1. 7336		18. 3		2. 3256	
15. 9		1. 7556		18. 4		2. 3511	
16. 0		1. 7777		18. 5		2. 3767	
16. 1		1. 8000		18. 6		2. 4025	
16. 2		1. 8225		18. 7		2. 4284	
16. 3		1. 8450		18. 8		2. 4544	
16. 4		1. 8677		18. 9		2. 4806	
16. 5		1. 8906		19. 0		2. 5069	
16. 6		1. 9136		19. 1		2. 5334	
16. 7		1. 9367		19. 2		2. 5600	
16. 8		1. 9600		19. 3		2. 5867	
16. 9		1. 9834		19. 4		2. 6136	
17. 0		2. 0069		19. 5		2. 6406	



## ( 101 )

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
19.	6	2.	6677	22.	1	3.	3917
19.	7	2.	6950	22.	2	3.	4225
19.	8	2.	7225	22.	3	3.	4534
19.	9	2.	7500	22.	4	3.	4844
20.	0	2.	7777	22.	5	3.	5156
20.	1	2.	8056	22.	6	3.	5469
20.	2	2.	8336	22.	7	3.	5784
20.	3	2.	8617	22.	8	3.	6100
20.	4	2.	8900	22.	9	3.	6417
20.	5	2.	9184	23.	0	3.	6736
20.	6	2.	9469	23.	1	3.	7056
20.	7	2.	9756	23.	2	3.	7377
20.	8	3.	0044	23.	3	3.	7700
20.	9	3.	0334	23.	4	3.	8025
21.	0	3.	0625	23.	5	3.	8350
21.	1	3.	0917	23.	6	3.	8677
21.	2	3.	1211	23.	7	3.	9006
21.	3	3.	1506	23.	8	3.	9336
21.	4	3.	1802	23.	9	3.	9667
21.	5	3.	2100	24.	0	4.	0000
21.	6	3.	2400	24.	1	4.	0334
21.	7	3.	2700	24.	2	4.	0669
21.	8	3.	3002	24.	3	4.	1006
21.	9	3.	3306	24.	4	4.	1344
22.	0	3.	3611	24.	5	4.	1684

K 3

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
24.	6	4.	2025	27.	1	5.	1000
24.	7	4.	2367	27.	2	5.	1377
24.	8	4.	2711	27.	3	5.	1756
24.	9	4.	3056	27.	4	5.	2136
25.	0	4.	3402	27.	5	5.	2517
25.	1	4.	3750	27.	6	5.	2900
25.	2	4.	4100	27.	7	5.	3284
25.	3	4.	4450	27.	8	5.	3669
25.	4	4.	4802	27.	9	5.	4056
25.	5	4.	5156	28.	0	5.	4444
25.	6	4.	5511	28.	1	5.	4834
25.	7	4.	5867	28.	2	5.	5225
25.	8	4.	6225	28.	3	5.	5617
25.	9	4.	6584	28.	4	5.	6011
26.	0	4.	6944	28.	5	5.	6406
26.	1	4.	7306	28.	6	5.	6802
26.	2	4.	7669	28.	7	5.	7200
26.	3	4.	8034	28.	8	5.	7600
26.	4	4.	8400	28.	9	5.	8000
26.	5	4.	8767	29.	0	5.	8402
26.	6	4.	9136	29.	1	5.	8806
26.	7	4.	9506	29.	2	5.	9211
26.	8	4.	9877	29.	3	5.	9617
26.	9	5.	0250	29.	4	6.	0025
27.	0	5.	0625	29.	5	6.	0434

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
29.	6	6. 0844		32.	1	7. 1556	
29.	7	6. 1256		32.	2	7. 2002	
29.	8	6. 1669		32.	3	7. 2450	
29.	9	6. 2084		32.	4	7. 2900	
30.	0	6. 2500		32.	5	7. 3350	
30.	1	6. 2917		32.	6	7. 3802	
30.	2	6. 3336		32.	7	7. 4256	
30.	3	6. 3756		32.	8	7. 4711	
30.	4	6. 4177		32.	9	7. 5167	
30.	5	6. 4600		33.	0	7. 5625	
30.	6	6. 5025		33.	1	7. 6084	
30.	7	6. 5450		33.	2	7. 6544	
30.	8	6. 5877		33.	3	7. 7006	
30.	9	6. 6306		33.	4	7. 7469	
31.	0	6. 6736		33.	5	7. 7934	
31.	1	6. 7167		33.	6	7. 8400	
31.	2	6. 7600		33.	7	7. 8867	
31.	3	6. 8034		33.	8	7. 9336	
31.	4	6. 8469		33.	9	7. 9806	
31.	5	6. 8906		34.	0	8. 0277	
31.	6	6. 9344		34.	1	8. 0750	
31.	7	6. 9784		34.	2	8. 1225	
31.	8	7. 0225		34.	3	8. 1700	
31.	9	7. 0667		34.	4	8. 2177	
32.	0	7. 1111		34.	5	8. 2656	

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
34.	6	8.	3136	35.	4	8.	7025
34.	7	8.	3617	35.	5	8.	7517
34.	8	8.	4100	35.	6	8.	8011
34.	9	8.	4584	35.	7	8.	8506
35.	0	8.	5069	35.	8	8.	9002
35.	1	8.	5556	35.	9	8.	9500
35.	2	8.	6044	36.	0	9.	0000
35.	3	8.	6534				

*The Use of the Table.*

The Use is no more but this:  
 Enter the Table with the Inches,  
 or Inches and decimal Parts of  
 the side of the Square taken at  
 the end of your piece of Timber  
 found in the first or third Column,  
 and over against this Number in  
 the opposite Column you will  
 find the Solid Content of one  
 Foot in Length of that piece of  
 Timber.

Thus

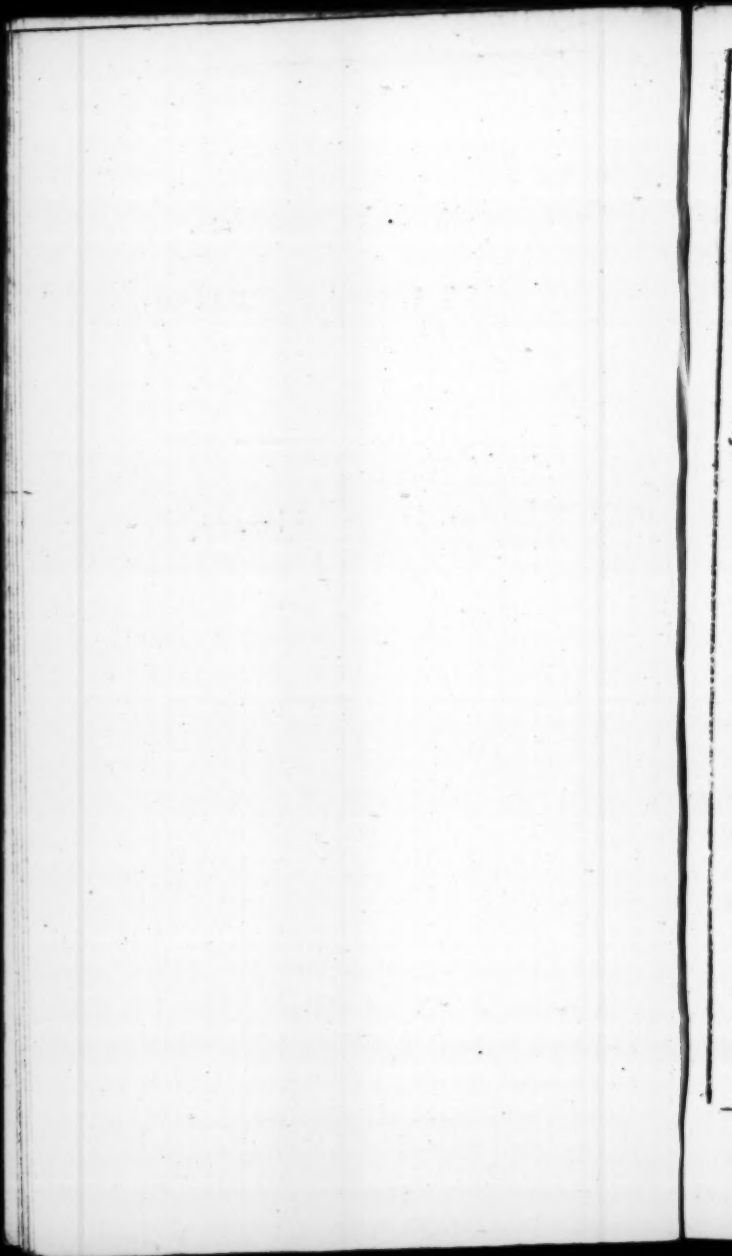
Thus a piece of Timber of 22  
Inches and 5 Tenths square,  
gives the Content of one Foot.

22.5 gives	—	3.5156
multiplied by the	}	
Length of the Timber		
40 foot and 5 tenths		405

---

Gives the solid Content	}	
of the whole, to wit		
142 Feet and some-		142.38180
thing above $\frac{1}{3}$ .		

---



A Table shewing the solid Content of one Foot in Length, of any piece of Timber, according to the Area or superficial Content in Inches and decimal Parts, taken at the End of the said Piece of Timber.

Area in pts	Feet	pts	Area in pts	Feet	pts
0. 01	00.	00007	3. 0	0.	02083
0. 02	00.	00014	4. 0	0.	02777
0. 03	00.	00021	5. 0	0.	03472
0. 04	00.	00028	6. 0	0.	04166
0. 05	00.	00035	7. 0	0.	04861
0. 06	00.	00042	8. 0	0.	05555
0. 07	00.	00049	9. 0	0.	06250
0. 08	00.	00056	10. 0	0.	06944
0. 09	00.	00062	20. 0	0.	0. 13888
0. 10	00.	00069	30. 0	0.	0. 20833
0. 20	00.	00138	40. 0	0.	0. 27777
0. 30	00.	00208	50. 0	0.	0. 34722
0. 40	00.	00277	60. 0	0.	0. 41666
0. 50	00.	00347	70. 0	0.	0. 48611
0. 60	00.	00416	80. 0	0.	0. 55555
0. 70	00.	00486	90. 0	0.	0. 62500
0. 80	00.	00555	100. 0	0.	0. 69444
0. 90	00.	00625	200. 0	0.	1. 38888
1. 00	00.	00694	300. 0	0.	2. 08333
2. 00	00.	01388	400. 0	0.	2. 77777

Area in pts	Feet	pts	Area in pts	Feet	pts
500. 0	3.	47222	8000.0	55.	55555
600. 0	4.	16666	9000.0	62.	50000
700. 0	4.	86111	10000.0	69.	44444
800. 0	5.	55555	20000.0	138.	88888
900. 0	6.	25000	30000.0	208.	33333
1000. 0	6.	94444	40000.0	277.	77777
2000. 0	13.	88888	50000.0	347.	22222
3000. 0	20.	83333	60000.0	416.	66666
4000. 0	27.	77777	70000.0	486.	11111
5000. 0	34.	72222	80000.0	555.	55555
6000. 0	41.	66666	90000.0	625.	00000
7000. 0	48.	61111			

### *The Use of the Table.*

Let your Timber be hewed into as many Sides, or into what Form you please, (provided it do not Taper) the Table by the Area taken at the End thereof shews the solid Content of one Foot in Length.

I shall lay down four Examples to illustrate the Use of the Table.

*1. Exam-*



1. *Example.*

We will then take it for granted, that the Timber is hewed into the Form of an Oblong at the End, supposing one of the Sides to be 30 Inches and the other 20, enter the Table with the Area which is 600, and you will find in the Column opposite to it 4.16666 the solid Content of one Foot in Length being 4 Foot and  $\frac{1}{6}$  part of a Foot.

2. *Example.*

Suppose one of the Sides at the End to be 14 Inches, and the other 16, whose Area is 112.

The Number answering  $\left\{ \begin{array}{l} 200 \text{ is } 1. 38888 \\ 20 \text{ is } 0. 13888 \\ 4 \text{ is } 0. 02777 \end{array} \right.$

The Sum is 1. 55553  
something above one Foot and  $\frac{1}{2}$ .

L

3. *Exam-*

## 3. Example.

Suppose one of the Sides to be  
15.7, the other Side to be 12.8;  
the Area will be 200.96.

The Number 200 gives ———— 1. 38888

The centesimal parts 96 ———— 0. 00625

The centesimal parts 06 ———— 0. 00042

The Content of one Foot ———— 1. 39555

which multiplied by the length }  
supposed ———— } --40. 4

gives the Content of the }  
whole Timber-Stick, (to wit) } 56. 38022

56 Feet and something more than  $\frac{1}{3}$ .

## 4. Exam-

4. *Example.*

Let one of the Sides be 24 Inches, 3 tenths; let the other Side be 21 Inches and 5 tenths.

$$\text{Sides } \left\{ \begin{array}{l} 24. 3 \\ 21. 5 \end{array} \right\}$$

---


$$\text{Area } 522. 45$$


---

<i>The Number answering</i>	{	— 500.	3.47222
		— 20.	0.13888
		— 02.	0.01388
		--40 cents	0.00277
		--05 cents	0.00035

---

*Sum total is 3.6281*

K 2

The

The solid Content of 1 Foot in length, which multiplied by the Length of the Timber, suppose 52 Foot 6 Tenths, gives the whole Content 190.83806.--190 Feet and something more than  $\frac{3}{4}$  of a Foot.

Here note that by extracting the Square-Root out of the Area, you may work by the Table of Square Timber.

A Table shewing the Solid Content of one Foot in Length of round Timber, the Circumference being taken in Inches and decimal Parts.

In.	Pts.	Feet	Pts.	In.	Pts.	Feet	Pts.
10.	0	00.	0552	11.	8	00.	0769
10.	1	00.	0563	11.	9	00.	0782
10.	2	00.	0574	12.	0	00.	0795
10.	3	00.	0586	12.	1	00.	0809
10.	4	00.	0597	12.	2	00.	0822
10.	5	00.	0609	12.	3	00.	0836
10.	6	00.	0619	12.	4	00.	0849
10.	7	00.	0632	12.	5	00.	0863
10.	8	00.	0644	12.	6	00.	0877
10.	9	00.	0656	12.	7	00.	0891
11.	0	00.	0668	12.	8	00.	0905
11.	1	00.	0680	12.	9	00.	0919
11.	2	00.	0693	13.	0	00.	0934
11.	3	00.	0707	13.	1	00.	0948
11.	4	00.	0718	13.	2	00.	0962
11.	5	00.	0730	13.	3	00.	0977
11.	6	00.	0743	13.	4	00.	0992
11.	7	00.	0756	13.	5	00.	1007

L. 3

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
13.	6	00.	1022	16.	1	00.	1432
13.	7	00.	1037	16.	2	00.	1450
13.	8	00.	1052	16.	3	00.	1468
13.	9	00.	1067	16.	4	00.	1486
14.	0	00.	1083	16.	5	00.	1504
14.	1	00.	1098	16.	6	00.	1522
14.	2	00.	1114	16.	7	00.	1541
14.	3	00.	1130	16.	8	00.	1559
14.	4	00.	1146	16.	9	00.	1578
14.	5	00.	1161	17.	0	00.	1597
14.	6	00.	1178	17.	1	00.	1616
14.	7	00.	1194	17.	2	00.	1634
14.	8	00.	1210	17.	3	00.	1653
14.	9	00.	1226	17.	4	00.	1673
15.	0	00.	1243	17.	5	00.	1692
15.	1	00.	1260	17.	6	00.	1711
15.	2	00.	1276	17.	7	00.	1731
15.	3	00.	1293	17.	8	00.	1751
15.	4	00.	1310	17.	9	00.	1770
15.	5	00.	1327	18.	0	00.	1790
15.	6	00.	1344	18.	1	00.	1810
15.	7	00.	1362	18.	2	00.	1830
15.	8	00.	1379	18.	3	00.	1850
15.	9	00.	1397	18.	4	00.	1871
16.	0	00.	1414	18.	5	00.	1891

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
18.	6	00.	1911	21.	1	00.	2460
18.	7	00.	1932	21.	2	00.	2483
18.	8	00.	1953	21.	3	00.	2507
18.	9	00.	1974	21.	4	00.	2530
19.	0	00.	1995	21.	5	00.	2554
19.	1	00.	2016	21.	6	00.	2578
19.	2	00.	2037	21.	7	00.	2602
19.	3	00.	2058	21.	8	00.	2626
19.	4	00.	2079	21.	9	00.	2650
19.	5	00.	2101	22.	0	00.	2674
19.	6	00.	2123	22.	1	00.	2699
19.	7	00.	2144	22.	2	00.	2723
19.	8	00.	2166	22.	3	00.	2748
19.	9	00.	2188	22.	4	00.	2772
20.	0	00.	2210	22.	5	00.	2797
20.	1	00.	2232	22.	6	00.	2822
20.	2	00.	2255	22.	7	00.	2847
20.	3	00.	2277	22.	8	00.	2872
20.	4	00.	2299	22.	9	00.	2898
20.	5	00.	2322	23.	0	00.	2923
20.	6	00.	2345	23.	1	00.	2948
20.	7	00.	2368	23.	2	00.	2974
20.	8	00.	2391	23.	3	00.	3000
20.	9	00.	2414	23.	4	00.	3026
21.	0	00.	2437	23.	5	00.	3051

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
23.	6	00.	3077	26.	1	00.	3764
23.	7	00.	3104	26.	2	00.	3793
23.	8	00.	3130	26.	3	00.	3822
23.	9	00.	3156	26.	4	00.	3851
24.	0	00.	3183	26.	5	00.	3880
24.	1	00.	3210	26.	6	00.	3910
24.	2	00.	3236	26.	7	00.	3939
24.	3	00.	3263	26.	8	00.	3969
24.	4	00.	3290	26.	9	00.	3999
24.	5	00.	3317	27.	0	00.	4028
24.	6	00.	3344	27.	1	00.	4058
24.	7	00.	3371	27.	2	00.	4088
24.	8	00.	3398	27.	3	00.	4118
24.	9	00.	3426	27.	4	00.	4148
25.	0	00.	3453	27.	5	00.	4179
25.	1	00.	3481	27.	6	00.	4209
25.	2	00.	3509	27.	7	00.	4240
25.	3	00.	3537	27.	8	00.	4270
25.	4	00.	3565	27.	9	00.	4301
25.	5	00.	3583	28.	0	00.	4332
25.	6	00.	3621	28.	1	00.	4363
25.	7	00.	3650	28.	2	00.	4394
25.	8	00.	3678	28.	3	00.	4425
25.	9	00.	3707	28.	4	00.	4457
26.	0	00.	3735	28.	5	00.	4486



In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
28.	6	00.	4520	31.	1	00.	5345
28.	7	00.	4551	31.	2	00.	5379
28.	8	00.	4583	31.	3	00.	5414
28.	9	00.	4615	31.	4	00.	5448
29.	0	00.	4647	31.	5	00.	5483
29.	1	00.	4679	31.	6	00.	5518
29.	2	00.	4711	31.	7	00.	5553
29.	3	00.	4744	31.	8	00.	5588
29.	4	00.	4776	31.	9	00.	5623
29.	5	00.	4809	32.	0	00.	5658
29.	6	00.	4841	32.	1	00.	5694
29.	7	00.	4874	32.	2	00.	5729
29.	8	00.	4907	32.	3	00.	5765
29.	9	00.	4940	32.	4	00.	5801
30.	0	00.	4973	32.	5	00.	5837
30.	1	00.	5006	32.	6	00.	5873
30.	2	00.	5040	32.	7	00.	5909
30.	3	00.	5073	32.	8	00.	5945
30.	4	00.	5107	32.	9	00.	5981
30.	5	00.	5140	33.	0	00.	6018
30.	6	00.	5174	33.	1	00.	6054
30.	7	00.	5208	33.	2	00.	6091
30.	8	00.	5242	33.	3	00.	6128
30.	9	00.	5276	33.	4	00.	6165
31.	0	00.	5310	33.	5	00.	6202

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
33.	6	00.	6239	36.	1	00.	7201
33.	7	00.	6276	36.	2	00.	7241
33.	8	00.	6313	36.	3	00.	7281
33.	9	00.	6350	36.	4	00.	7322
34.	0	00.	6388	36.	5	00.	7362
34.	1	00.	6426	36.	6	00.	7402
34.	2	00.	6463	36.	7	00.	7443
34.	3	00.	6501	36.	8	00.	7483
34.	4	00.	6539	36.	9	00.	7524
34.	5	00.	6577	37.	0	00.	7565
34.	6	00.	6615	37.	1	00.	7606
34.	7	00.	6654	37.	2	00.	7647
34.	8	00.	6692	37.	3	00.	7688
34.	9	00.	6731	37.	4	00.	7729
35.	0	00.	6769	37.	5	00.	7771
35.	1	00.	6808	37.	6	00.	7812
35.	2	00.	6847	37.	7	00.	7854
35.	3	00.	6886	37.	8	00.	7896
35.	4	00.	6925	37.	9	00.	7938
35.	5	00.	6964	38.	0	00.	7979
35.	6	00.	7003	38.	1	00.	8022
35.	7	00.	7043	38.	2	00.	8064
35.	8	00.	7082	38.	3	00.	8106
35.	9	00.	7122	38.	4	00.	8148
36.	0	00.	7162	38.	5	00.	8191

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
38.	6	00.	8233	41.	1	00.	9335
38.	7	00.	8276	41.	2	00.	9380
38.	8	00.	8319	41.	3	00.	9426
38.	9	00.	8362	41.	4	00.	9471
39.	0	00.	8405	41.	5	00.	9517
39.	1	00.	8448	41.	6	00.	9563
39.	2	00.	8491	41.	7	00.	9609
39.	3	00.	8535	41.	8	00.	9655
39.	4	00.	8578	41.	9	00.	9701
39.	5	00.	8622	42.	0	00.	9748
39.	6	00.	8666	42.	1	00.	9794
39.	7	00.	8710	42.	2	00.	9841
39.	8	00.	8753	42.	3	00.	9888
39.	9	00.	8797	42.	4	00.	9934
40.	0	00.	8842	42.	5	00.	9981
40.	1	00.	8886	42.	6	01.	0028
40.	2	00.	8930	42.	7	01.	0075
40.	3	00.	8975	42.	8	01.	0123
40.	4	00.	9019	42.	9	01.	0170
40.	5	00.	9064	43.	0	01.	0218
40.	6	00.	9109	43.	1	01.	0265
40.	7	00.	9154	43.	2	01.	0313
40.	8	00.	9199	43.	3	01.	0361
40.	9	00.	9244	43.	4	01.	0408
41.	0	00.	9289	43.	5	01.	0457

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
43.	6	01.	0505	46.	1	01.	1744
43.	7	01.	0553	46.	2	01.	1795
43.	8	01.	0601	46.	3	01.	1846
43.	9	01.	0650	46.	4	01.	1897
44.	0	01.	0698	46.	5	01.	1949
44.	1	01.	0747	46.	6	01.	2000
44.	2	01.	0796	46.	7	01.	2052
44.	3	01.	0845	46.	8	01.	2103
44.	4	01.	0894	46.	9	01.	2155
44.	5	01.	0943	47.	0	01.	2207
44.	6	01.	0992	47.	1	01.	2259
44.	7	01.	1041	47.	2	01.	2311
44.	8	01.	1091	47.	3	01.	2363
44.	9	01.	1141	47.	4	01.	2416
45.	0	01.	1190	47.	5	01.	2468
45.	1	01.	1240	47.	6	01.	2521
45.	2	01.	1290	47.	7	01.	2573
45.	3	01.	1340	47.	8	01.	2626
45.	4	01.	1390	47.	9	01.	2679
45.	5	01.	1440	48.	0	01.	2732
45.	6	01.	1491	48.	1	01.	2785
45.	7	01.	1541	48.	2	01.	2838
45.	8	01.	1592	48.	3	01.	2892
45.	9	01.	1642	48.	4	01.	2945
46.	0	01.	1693	48.	5	01.	2999

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In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
48.	6	01.	3052	51.	1	01.	4430
48.	7	01.	3106	51.	2	01.	4486
48.	8	01.	3160	51.	3	01.	4543
48.	9	01.	3214	51.	4	01.	4600
49.	0	01.	3268	51.	5	01.	4656
49.	1	01.	3322	51.	6	01.	4713
49.	2	01.	3376	51.	7	01.	4771
49.	3	01.	3431	51.	8	01.	4828
49.	4	01.	3486	51.	9	01.	4885
49.	5	01.	3540	52.	0	01.	4942
49.	6	01.	3595	52.	1	01.	5000
49.	7	01.	3650	52.	2	01.	5058
49.	8	01.	3705	52.	3	01.	5115
49.	9	01.	3760	52.	4	01.	5173
50.	0	01.	3815	52.	5	01.	5231
50.	1	01.	3870	52.	6	01.	5289
50.	2	01.	3926	52.	7	01.	5347
50.	3	01.	3981	52.	8	01.	5406
50.	4	01.	4037	52.	9	01.	5464
50.	5	01.	4093	53.	0	01.	5523
50.	6	01.	4149	53.	1	01.	5581
50.	7	01.	4205	53.	2	01.	5640
50.	8	01.	4261	53.	3	01.	5699
50.	9	01.	4317	53.	4	01.	5758
51.	0	01.	4373	53.	5	01.	5817

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In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
53.	6	01.	5876	56.	1	01.	7392
53.	7	01.	5935	56.	2	01.	7454
53.	8	01.	5995	56.	3	01.	7516
53.	9	01.	6054	56.	4	01.	7578
54.	0	01.	6114	56.	5	01.	7641
54.	1	01.	6174	56.	6	01.	7703
54.	2	01.	6234	56.	7	01.	7766
54.	3	01.	6294	56.	8	01.	7828
54.	4	01.	6354	56.	9	01.	7891
54.	5	01.	6414	57.	0	01.	7954
54.	6	01.	6474	57.	1	01.	8017
54.	7	01.	6535	57.	2	01.	8080
54.	8	01.	6595	57.	3	01.	8144
54.	9	01.	6656	57.	4	01.	8207
55.	0	01.	6716	57.	5	01.	8271
55.	1	01.	6777	57.	6	01.	8334
55.	2	01.	6838	57.	7	01.	8398
55.	3	01.	6899	57.	8	01.	8462
55.	4	01.	6960	57.	9	01.	8526
55.	5	01.	7022	58.	0	01.	8590
55.	6	01.	7083	58.	1	01.	8654
55.	7	01.	7145	58.	2	01.	8718
55.	8	01.	7206	58.	3	01.	8783
55.	9	01.	7268	58.	4	01.	8847
56.	0	01.	7330	58.	5	01.	8912

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
58.	6	01.	8976	61.	1	02.	0630
58.	7	01.	9041	61.	2	02.	0698
58.	8	01.	9106	61.	3	02.	0765
58.	9	01.	9171	61.	4	02.	0833
59.	0	01.	9236	61.	5	02.	0901
59.	1	01.	9302	61.	6	02.	0969
59.	2	01.	9367	61.	7	02.	1037
59.	3	01.	9432	61.	8	02.	1106
59.	4	01.	9498	61.	9	02.	1174
59.	5	01.	9564	62.	0	02.	1242
59.	6	01.	9630	62.	1	02.	1311
59.	7	01.	9696	62.	2	02.	1380
59.	8	01.	9762	62.	3	02.	1448
59.	9	01.	9828	62.	4	02.	1517
60.	0	01.	9894	62.	5	02.	1586
60.	1	01.	9960	62.	6	02.	1655
60.	2	02.	0027	62.	7	02.	1724
60.	3	02.	0093	62.	8	02.	1794
60.	4	02.	0160	62.	9	02.	1864
60.	5	02.	0227	63.	0	02.	1933
60.	6	02.	0294	63.	1	02.	2003
60.	7	02.	0361	63.	2	02.	2073
60.	8	02.	0428	63.	3	02.	2143
60.	9	02.	0495	63.	4	02.	2213
61.	0	02.	0563	63.	5	02.	2283

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
63.	6	02.	2353	66.	1	02.	4145
63.	7	02.	2423	66.	2	02.	4218
63.	8	02.	2494	66.	3	02.	4291
63.	9	02.	2564	66.	4	02.	4364
64.	0	02.	2635	66.	5	02.	4438
64.	1	02.	2706	66.	6	02.	4511
64.	2	02.	2777	66.	7	02.	4585
64.	3	02.	2838	66.	8	02.	4659
64.	4	02.	2919	66.	9	02.	4733
64.	5	02.	2990	67.	0	02.	4807
64.	6	02.	3061	67.	1	02.	4881
64.	7	02.	3133	67.	2	02.	4955
64.	8	02.	3204	67.	3	02.	5029
64.	9	02.	3276	67.	4	02.	5104
65.	0	02.	3348	67.	5	02.	5178
65.	1	02.	3420	67.	6	02.	5253
65.	2	02.	3492	67.	7	02.	5328
65.	3	02.	3564	67.	8	02.	5403
65.	4	02.	3636	67.	9	02.	5478
65.	5	02.	3708	68.	0	02.	5553
65.	6	02.	3781	68.	1	02.	5628
65.	7	02.	3853	68.	2	02.	5703
65.	8	02.	3926	68.	3	02.	5779
65.	9	02.	3999	68.	4	02.	5854
66.	0	02.	4072	68.	5	02.	5930



Pts

45

18

91

64

38

11

85

59

33

07

81

55

29

04

78

53

28

03

8

3

8

3

8

3

9

4

0

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
68.	6	02.	6006	71.	1	02.	7936
68.	7	02.	6082	71.	2	02.	8014
68.	8	02.	6158	71.	3	02.	8093
68.	9	02.	6234	71.	4	02.	8192
69.	0	02.	6310	71.	5	02.	8251
69.	1	02.	6386	71.	6	02.	8330
69.	2	02.	6463	71.	7	02.	8409
69.	3	02.	6539	71.	8	02.	8488
69.	4	02.	6616	71.	9	02.	8568
69.	5	02.	6693	72.	0	02.	8647
69.	6	02.	6770	72.	1	02.	8727
69.	7	02.	6846	72.	2	02.	8807
69.	8	02.	6924	72.	3	02.	8887
69.	9	02.	7001	72.	4	02.	8967
70.	0	02.	7078	72.	5	02.	9047
70.	1	02.	7155	72.	6	02.	9127
70.	2	02.	7233	72.	7	02.	9207
70.	3	02.	7311	72.	8	02.	9288
70.	4	02.	7388	72.	9	02.	9368
70.	5	02.	7466	73.	0	02.	9449
70.	6	02.	7544	73.	1	02.	9530
70.	7	02.	7622	73.	2	02.	9610
70.	8	02.	7700	73.	3	02.	9691
70.	9	02.	7779	73.	4	02.	9772
71.	0	02.	7857	73.	5	02.	9854

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In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
73.	6	02.	9935	76.	1	03.	2003
73.	7	03.	0016	76.	2	03.	2087
73.	8	03.	0098	76.	3	03.	2171
73.	9	03.	0180	76.	4	03.	2256
74.	0	03.	0261	76.	5	03.	2340
74.	1	03.	0343	76.	6	03.	2425
74.	2	03.	0425	76.	7	03.	2510
74.	3	03.	0507	76.	8	03.	2595
74.	4	03.	0589	76.	9	03.	2680
74.	5	03.	0671	77.	0	03.	2765
74.	6	03.	0754	77.	1	03.	2850
74.	7	03.	0836	77.	2	03.	2935
74.	8	03.	0919	77.	3	03.	3020
74.	9	03.	1002	77.	4	03.	3106
75.	0	03.	1085	77.	5	03.	3191
75.	1	03.	1167	77.	6	03.	3277
75.	2	03.	1250	77.	7	03.	3363
75.	3	03.	1334	77.	8	03.	3449
75.	4	03.	1417	77.	9	03.	3535
75.	5	03.	1500	78.	0	03.	3621
75.	6	03.	1584	78.	1	03.	3707
75.	7	03.	1668	78.	2	03.	3794
75.	8	03.	1751	78.	3	03.	3880
75.	9	03.	1835	78.	4	03.	3967
76.	0	03.	1919	78.	5	03.	4054

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
78.	6	03.	4140	81.	1	03.	6347
78.	7	03.	4227	81.	2	03.	6436
78.	8	03.	4314	81.	3	03.	6526
78.	9	03.	4401	81.	4	03.	6616
79.	0	03.	4489	81.	5	03.	6706
79.	1	03.	4576	81.	6	03.	6796
79.	2	03.	4664	81.	7	03.	6886
79.	3	03.	4751	81.	8	03.	6977
79.	4	03.	4839	81.	9	03.	7067
79.	5	03.	4927	82.	0	03.	7158
79.	6	03.	5015	82.	1	03.	7248
79.	7	03.	5103	82.	2	03.	7339
79.	8	03.	5191	82.	3	03.	7430
79.	9	03.	5279	82.	4	03.	7521
80.	0	03.	5367	82.	5	03.	7612
80.	1	03.	5456	82.	6	03.	7704
80.	2	03.	5544	82.	7	03.	7795
80.	3	03.	5633	82.	8	03.	7886
80.	4	03.	5722	82.	9	03.	7978
80.	5	03.	5811	83.	0	03.	8070
80.	6	03.	5900	83.	1	03.	8161
80.	7	03.	5989	83.	2	03.	8253
80.	8	03.	6078	83.	3	03.	8345
80.	9	03.	6168	83.	4	03.	8437
81.	0	03.	6257	83.	5	03.	8530

No.	Pts	Feet	Pts	No.	Pts	Feet	Pts
83.	6	03.	8622	86.	1	04.	0966
83.	7	03.	8715	86.	2	04.	1062
83.	8	03.	8807	86.	3	04.	1157
83.	9	03.	8900	86.	4	04.	1253
84.	0	03.	8993	86.	5	04.	1348
84.	1	03.	9085	86.	6	04.	1444
84.	2	03.	9178	86.	7	04.	1540
84.	3	03.	9272	86.	8	04.	1635
84.	4	03.	9365	86.	9	04.	1731
84.	5	03.	9458	87.	0	04.	1828
84.	6	03.	9552	87.	1	04.	1924
84.	7	03.	9645	87.	2	04.	2020
84.	8	03.	9739	87.	3	04.	2116
84.	9	03.	9833	87.	4	04.	2213
85.	0	03.	9926	87.	5	04.	2310
85.	1	04.	0020	87.	6	04.	2406
85.	2	04.	0115	87.	7	04.	2503
85.	3	04.	0209	87.	8	04.	2600
85.	4	04.	0303	87.	9	04.	2697
85.	5	04.	0398	88.	0	04.	2795
85.	6	04.	0492	88.	1	04.	2892
85.	7	04.	0587	88.	2	04.	2989
85.	8	04.	0682	88.	3	04.	3087
85.	9	04.	0776	88.	4	04.	3185
86.	0	04.	0871	88.	5	04.	3283

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
88.	6	04.	3380	91.	1	04.	5863
88.	7	04.	3478	91.	2	04.	5964
88.	8	04.	3576	91.	3	04.	6064
88.	9	04.	3674	91.	4	04.	6165
89.	0	04.	3773	91.	5	04.	6266
89.	1	04.	3871	91.	6	04.	6368
89.	2	04.	3970	91.	7	04.	6469
89.	3	04.	4068	91.	8	04.	6570
89.	4	04.	4167	91.	9	04.	6672
89.	5	04.	4266	92.	0	04.	6773
89.	6	04.	4365	92.	1	04.	6875
89.	7	04.	4464	92.	2	04.	6977
89.	8	04.	4563	92.	3	04.	7079
89.	9	04.	4663	92.	4	04.	7181
90.	0	04.	4762	92.	5	04.	7283
90.	1	04.	4861	92.	6	04.	7386
90.	2	04.	4961	92.	7	04.	7488
90.	3	04.	5061	92.	8	04.	7590
90.	4	04.	5161	92.	9	04.	7693
90.	5	04.	5261	93.	0	04.	7796
90.	6	04.	5361	93.	1	04.	7898
90.	7	04.	5461	93.	2	04.	8002
90.	8	04.	5561	93.	3	04.	8105
90.	9	04.	5662	93.	4	04.	8208
91.	0	04.	5762	93.	5	04.	8311

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
93.	6	04.	8415	96.	1	05.	1035
93.	7	04.	8518	96.	2	05.	1142
93.	8	04.	8622	96.	3	05.	1248
93.	9	04.	8725	96.	4	05.	1354
94.	0	04.	8829	96.	5	05.	1461
94.	1	04.	8933	96.	6	05.	1568
94.	2	04.	9037	96.	7	05.	1675
94.	3	04.	9141	96.	8	05.	1782
94.	4	04.	9246	96.	9	05.	1889
94.	5	04.	9350	97.	0	05.	1996
94.	6	04.	9455	97.	1	05.	2103
94.	7	04.	9560	97.	2	05.	2210
94.	8	04.	9664	97.	3	05.	2317
94.	9	04.	9769	97.	4	05.	2425
95.	0	04.	9874	97.	5	05.	2533
95.	1	04.	9979	97.	6	05.	2641
95.	2	05.	0083	97.	7	05.	2749
95.	3	05.	0189	97.	8	05.	2857
95.	4	05.	0295	97.	9	05.	2965
95.	5	05.	0400	98.	0	05.	3073
95.	6	05.	0506	98.	1	05.	3182
95.	7	05.	0611	98.	2	05.	3290
95.	8	05.	0717	98.	3	05.	3399
95.	9	05.	0823	98.	4	05.	3507
96.	0	05.	0929	98.	5	05.	3616

## ( 131 )

Pts	In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
35	98.6	05.	3725	101.1	05.	6484		
42	98.7	05.	3834	101.2	05.	6596		
48	98.8	05.	3943	101.3	05.	6708		
54	98.9	05.	4053	101.4	05.	6820		
61	99.0	05.	4162	101.5	05.	6932		
68	99.1	05.	4271	101.6	05.	7044		
75	99.2	05.	4381	101.7	05.	7157		
82	99.3	05.	4491	101.8	05.	7269		
89	99.4	05.	4601	101.9	05.	7382		
96	99.5	05.	4710	102.0	05.	7494		
03	99.6	05.	4821	102.1	05.	7607		
10	99.7	05.	4931	102.2	05.	7720		
17	99.8	05.	5041	102.3	05.	7833		
25	99.9	05.	5151	102.4	05.	7946		
33	100.0	05.	5262	102.5	05.	8059		
41	100.1	05.	5372	102.6	05.	8173		
49	100.2	05.	5483	102.7	05.	8286		
57	100.3	05.	5594	102.8	05.	8400		
65	100.4	05.	5705	102.9	05.	8513		
73	100.5	05.	5816	103.0	05.	8627		
82	100.6	05.	5927	103.1	05.	8741		
90	100.7	05.	6038	103.2	05.	8855		
99	100.8	05.	6149	103.3	05.	8969		
07	100.9	05.	6260	103.4	05.	9083		
16	101.0	05.	6372	103.5	05.	9198		

In.	Pts	Feet	Pts	In.	Pts	Feet	Pts
103.6	05.	9312		105.9	06.	1975	
103.7	05.	9427		106.0	06.	2092	
103.8	05.	9541		106.1	06.	2209	
103.9	05.	9656		106.2	06.	2327	
104.0	05.	9771		106.3	06.	2444	
104.1	05.	9886		106.4	06.	2562	
104.2	06.	0001		106.5	06.	2679	
104.3	06.	0116		106.6	06.	2797	
104.4	06.	0232		106.7	06.	2915	
104.5	06.	0347		106.8	06.	3033	
104.6	06.	0463		106.9	06.	3151	
104.7	06.	0579		107.0	06.	3269	
104.8	06.	0694		107.1	06.	3387	
104.9	06.	0810		107.2	06.	3506	
105.0	06.	0926		107.3	06.	3624	
105.1	06.	1042		107.4	06.	3743	
105.2	06.	1158		107.5	06.	3862	
105.3	06.	1275		107.6	06.	3981	
105.4	06.	1391		107.7	06.	4100	
105.5	06.	1508		107.8	06.	4219	
105.6	06.	1624		107.9	06.	4338	
105.7	06.	1741		108.0	06.	4457	
105.8	06.	1858					



*The Use of the foregoing Table.*

The Use of this Table is easily understood; for it is but entering the Table with the Inches, or Inches and Decimal Parts of the Circumference or Compass of your Timber; and in the opposite Column you have the Solid Content of one Foot in Length, of your Round Timber.

Thus the Circumference being 82 Inches, and 4 Tenths, the Solidity of one Foot in Length will be 3 Feet and  $\frac{3}{4}$  of a Foot, which multiplied by the whole Length, suppose 40 Feet gives 150 Feet and something more;

*As in the following Example.*

*Inches and Parts of the Compass*—82.4

*Solidity of one Foot*---3.7521

*Multiplied by the Length*---40

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*Content of the whole Timber*--150.0840

N

Mr.

Mr. WINGATE's  
TABLE  
OF  
ACCOUNTS.

Num- ber.	1 Farthing				2 Farthings				3 Farthings			
	l.	s.	d.	c.	l.	s.	d.	c.	l.	s.	d.	c.
1	0	0	0	1	0	0	0	2	0	0	0	3
2	0	0	0	2	0	0	0	1	0	0	0	1
3	0	0	0	3	0	0	0	1	2	0	0	2
4	0	0	0	1	0	0	0	2	0	0	0	3
5	0	0	0	1	0	0	0	2	2	0	0	3
6	0	0	0	1	2	0	0	3	0	0	0	4
7	0	0	0	1	3	0	0	3	2	0	0	5
8	0	0	0	2	0	0	0	4	0	0	0	6
9	0	0	0	2	1	0	0	4	2	0	0	6
10	0	0	0	2	2	0	0	5	0	0	0	7
20	0	0	0	5	0	0	0	10	0	0	0	1
30	0	0	0	7	2	0	0	1	3	0	0	1
40	0	0	0	10	0	0	0	1	8	0	0	2
50	0	0	0	10	2	0	0	2	1	0	0	3
60	0	0	0	13	0	0	0	2	6	0	0	3
70	0	0	0	15	2	0	0	2	11	0	0	4
80	0	0	0	18	0	0	0	3	4	0	0	5
90	0	0	0	20	2	0	0	3	9	0	0	5
100	0	0	0	1	0	0	0	4	2	0	0	6
200	0	0	0	2	0	0	0	8	4	0	0	12
300	0	0	0	3	0	0	0	12	6	0	0	18
400	0	0	0	4	0	0	0	16	8	0	0	24
500	0	0	0	5	0	0	0	20	10	0	0	30
600	0	0	0	6	0	0	0	24	12	0	0	36
700	0	0	0	7	0	0	0	28	14	0	0	42
800	0	0	0	8	0	0	0	32	16	0	0	48
900	0	0	0	9	0	0	0	36	18	0	0	54
1000	1	0	0	0	2	0	0	1	8	0	0	3
2000	2	0	0	0	4	0	0	3	4	0	0	6
3000	3	0	0	0	6	0	0	5	0	0	0	9
4000	4	0	0	0	8	0	0	6	8	0	0	12
5000	5	0	0	0	10	0	0	8	16	0	0	16
10000	10	0	0	0	20	0	0	16	32	0	0	32

Num- ber.	1 Penny			2 Pence			3 Pence		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	1	0	0	2	0	0	3
2	0	0	2	0	0	4	0	0	6
3	0	0	3	0	0	6	0	0	9
4	0	0	4	0	0	8	0	1	0
5	0	0	5	0	0	10	0	1	3
6	0	0	6	0	1	0	0	1	6
7	0	0	7	0	1	2	0	1	9
8	0	0	8	0	1	4	0	2	0
9	0	0	9	0	1	6	0	2	3
10	0	0	10	0	1	8	0	2	6
20	0	1	8	0	3	4	0	5	0
30	0	2	6	0	5	0	0	7	6
40	0	3	4	0	6	8	0	10	0
50	0	4	2	0	8	4	0	12	6
60	0	5	0	0	10	0	0	15	0
70	0	5	10	0	11	8	0	17	6
80	0	6	8	0	13	4	1	0	0
90	0	7	6	0	15	0	1	2	6
100	0	8	4	0	16	8	1	5	0
200	0	16	8	1	13	4	2	10	0
300	1	5	0	2	10	0	3	15	0
400	1	13	4	3	6	8	5	0	0
500	2	1	8	4	3	4	6	5	0
600	2	10	0	5	0	0	7	10	0
700	2	18	4	5	16	8	8	15	0
800	3	6	8	6	13	4	10	0	0
900	3	15	0	7	10	0	11	5	0
1000	4	3	4	8	6	8	12	10	0
2000	8	6	8	16	13	4	25	0	0
3000	12	10	0	25	0	0	37	10	0
4000	16	13	4	33	6	8	50	0	0
5000	20	16	8	41	13	4	62	10	0
10000	41	13	4	83	6	0	125	0	0

Number.	4 Pence			5 Pence			6 Pence		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	4	0	0	5	0	0	6
2	0	0	8	0	0	10	0	1	0
3	0	1	0	0	1	3	0	1	6
4	0	1	4	0	1	8	0	2	0
5	0	1	8	0	2	1	0	2	6
6	0	2	0	0	2	6	0	3	0
7	0	2	4	0	2	11	0	3	6
8	0	2	8	0	3	4	0	4	0
9	0	3	0	0	3	9	0	4	6
10	0	3	4	0	4	2	0	5	0
20	0	6	8	0	8	4	0	10	0
30	0	10	0	0	12	8	0	15	0
40	0	13	4	0	16	8	1	0	0
50	0	16	8	1	0	10	1	5	0
60	1	0	0	1	5	0	1	10	0
70	1	3	4	1	9	2	1	15	0
80	1	6	8	1	13	4	2	0	0
90	1	10	0	1	17	6	2	5	0
100	1	13	4	2	1	8	2	10	0
200	3	6	8	4	3	4	5	0	0
300	5	0	0	6	5	0	7	10	0
400	6	13	4	8	6	8	10	0	0
500	8	6	8	10	8	4	12	10	0
600	10	0	0	12	10	0	15	0	0
700	11	13	4	14	11	8	17	10	0
800	13	6	8	16	13	4	20	0	0
900	15	0	0	18	15	0	22	10	0
1000	16	13	4	20	16	8	25	0	0
2000	33	6	8	41	13	4	50	0	0
3000	50	0	0	62	10	0	75	0	0
4000	65	13	4	83	6	8	100	0	0
5000	83	6	8	104	3	4	125	0	0
10000	166	13	4	208	6	8	250	0	0

Num- ber.	7 Pence			8 Pence			9 Pence		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	7	0	0	8	0	0	9
2	0	1	2	0	1	4	0	1	6
3	0	1	9	0	2	0	0	2	3
4	0	2	4	0	2	8	0	3	0
5	0	2	11	0	3	4	0	3	9
6	0	3	6	0	4	0	0	4	6
7	0	4	1	0	4	8	0	5	3
8	0	4	8	0	5	4	0	6	0
9	0	5	3	0	6	0	0	6	9
10	0	5	10	0	6	8	0	7	6
20	0	11	8	0	13	4	0	15	0
30	0	17	6	1	0	0	1	2	6
40	1	3	4	1	6	8	1	10	0
50	1	9	2	1	13	4	1	17	6
60	1	15	0	2	0	0	2	5	0
70	2	0	10	2	6	8	2	12	6
80	2	6	8	2	13	4	3	0	0
90	2	12	6	3	0	0	3	7	6
100	2	18	4	3	6	8	3	15	0
200	5	16	8	6	13	4	7	10	0
300	8	15	0	10	0	0	11	5	0
400	11	13	4	13	6	8	15	0	0
500	14	11	8	16	13	4	18	15	0
600	17	10	0	20	0	0	22	10	0
700	20	8	4	23	6	8	26	5	0
800	23	6	8	26	13	4	30	0	0
900	26	5	0	30	0	0	30	15	0
1000	29	3	4	33	6	8	37	10	0
2000	58	6	8	66	13	4	75	0	0
3000	87	10	0	100	0	0	112	10	0
4000	116	13	4	133	6	8	150	0	0
5000	145	16	8	166	13	4	187	10	0
10000	201	13	4	233	6	8	375	0	0

Number	10 Pence			11 Pence		
	l.	s.	d.	l.	s.	d.
1	0	0	10	0	0	11
2	0	1	8	0	1	10
3	0	2	6	0	2	9
4	0	3	4	0	3	8
5	0	4	2	0	4	7
6	0	5	0	0	5	6
7	0	5	10	0	6	5
8	0	6	8	0	7	4
9	0	7	6	0	8	3
10	0	8	4	0	9	2
20	0	16	8	0	18	4
30	1	5	0	1	7	6
40	1	13	4	1	16	8
50	2	1	8	2	5	10
60	2	10	0	2	15	0
70	2	18	4	3	4	2
80	3	6	8	3	13	4
90	3	15	0	4	2	6
100	4	3	4	4	11	8
200	8	6	8	9	3	4
300	12	10	0	13	15	0
400	16	13	4	18	6	8
500	20	16	8	22	18	4
600	25	0	0	27	10	0
700	29	3	4	32	1	8
800	33	6	8	36	13	4
900	37	10	0	41	5	0
1000	41	13	4	45	16	8
2000	83	6	8	91	13	4
3000	125	0	0	137	10	0
4000	166	13	4	183	6	8
5000	208	6	8	229	3	4
10000	416	13	4	458	6	8

Num- bers	1 Shilling		2 Shillings		3 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	1	0	2	0	3
2	0	2	0	4	0	6
3	0	3	0	6	0	9
4	0	4	0	8	0	12
5	0	5	0	10	0	15
6	0	6	0	12	0	18
7	0	7	0	14	1	1
8	0	8	0	16	1	4
9	0	9	0	18	1	7
10	0	10	1	0	1	10
20	1	0	2	0	3	0
30	1	10	3	0	4	10
40	2	0	4	0	6	0
50	2	10	5	0	7	10
60	3	0	6	0	9	0
70	3	10	7	0	10	10
80	4	0	8	0	12	0
90	4	10	9	0	13	10
100	5	0	10	0	15	0
200	10	0	20	0	30	0
300	15	0	30	0	45	0
400	20	0	40	0	60	0
500	25	0	50	0	75	0
600	30	0	60	0	90	0
700	35	0	70	0	105	0
800	40	0	80	0	120	0
900	45	0	90	0	135	0
1000	50	0	100	0	150	0
2000	100	0	200	0	300	0
3000	150	0	300	0	450	0
4000	200	0	400	0	600	0
5000	250	0	500	0	750	0
10000	500	0	1000	0	1500	0



Number	4 Shillings		5 Shillings		6 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	4	0	5	0	6
2	0	8	0	10	0	12
3	0	12	0	15	0	18
4	0	16	1	0	1	4
5	1	0	1	5	1	10
6	1	4	1	10	1	16
7	1	8	1	15	2	2
8	1	12	2	0	2	8
9	1	16	2	5	2	14
10	2	0	2	10	3	0
20	4	0	5	0	6	0
30	6	0	7	10	9	0
40	8	0	10	0	12	0
50	10	0	12	10	15	0
60	12	0	15	0	18	0
70	14	0	17	10	21	0
80	16	0	20	0	24	0
90	18	0	22	10	27	0
100	20	0	25	0	30	0
200	40	0	50	0	60	0
300	60	0	75	0	90	0
400	80	0	100	0	120	0
500	100	0	125	0	150	0
600	120	0	150	0	180	0
700	140	0	175	0	210	0
800	160	0	200	0	240	0
900	180	0	225	0	270	0
1000	200	0	250	0	300	0
2000	400	0	500	0	600	0
3000	600	0	750	0	900	0
4000	800	0	1000	0	1200	0
5000	1000	0	1250	0	1500	0
10000	2000	0	2500	0	3000	0

Num- ber	7 Shillings		8 Shillings		9 Shillings		10 Shill.	
	l.	s.	l.	s.	l.	s.	l.	s.
1	0	7	0	8	0	9	0	10
2	0	14	0	16	0	18	0	0
3	0	21	0	24	0	27	0	10
4	0	28	0	32	0	36	0	0
5	0	35	0	40	0	45	0	10
6	0	42	0	48	0	54	0	0
7	0	49	0	56	0	63	0	10
8	0	56	0	64	0	72	0	0
9	0	63	0	72	0	81	0	10
10	0	70	0	80	0	90	0	0
20	0	140	0	160	0	180	0	10
30	0	210	0	240	0	270	0	0
40	0	280	0	320	0	360	0	10
50	0	350	0	400	0	450	0	0
60	0	420	0	480	0	540	0	10
70	0	490	0	560	0	630	0	0
80	0	560	0	640	0	720	0	10
90	0	630	0	720	0	810	0	0
100	0	700	0	800	0	900	0	10
200	0	1400	0	1600	0	1800	0	0
300	0	2100	0	2400	0	2700	0	10
400	0	2800	0	3200	0	3600	0	0
500	0	3500	0	4000	0	4500	0	10
600	0	4200	0	4800	0	5400	0	0
700	0	4900	0	5600	0	6300	0	10
800	0	5600	0	6400	0	7200	0	0
900	0	6300	0	7200	0	8100	0	10
1000	0	7000	0	8000	0	9000	0	0
2000	0	14000	0	16000	0	18000	0	10
3000	0	21000	0	24000	0	27000	0	0
4000	0	28000	0	32000	0	36000	0	10
5000	0	35000	0	40000	0	45000	0	0
6000	0	42000	0	48000	0	54000	0	10
7000	0	49000	0	56000	0	63000	0	0
8000	0	56000	0	64000	0	72000	0	10
9000	0	63000	0	72000	0	81000	0	0
10000	0	70000	0	80000	0	90000	0	10

Num- ber	1 Lib.	2 Lib.	3 Lib.	4 Lib.	5 Lib.
	l.	l.	l.	l.	l.
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25
6	6	12	18	24	30
7	7	14	21	28	35
8	8	16	24	32	40
9	9	18	27	36	45
10	10	20	30	40	50
20	20	40	60	80	100
30	30	60	90	120	150
40	40	80	120	160	200
50	50	100	150	200	250
60	60	120	180	240	300
70	70	140	210	280	350
80	80	160	240	320	400
90	90	180	270	360	450
100	100	200	300	400	500
200	200	400	600	800	1000
300	300	600	900	1200	1500
400	400	800	1200	1600	2000
500	500	1000	1500	2000	2500
600	600	1200	1800	2400	3000
700	700	1400	2100	2800	3500
800	800	1600	2400	3200	4000
900	900	1800	2700	3600	4500
1000	1000	2000	3000	4000	5000
2000	2000	4000	6000	8000	10000
3000	3000	6000	9000	12000	15000
4000	4000	8000	12000	16000	20000
5000	5000	10000	15000	20000	25000
10000	10000	20000	30000	40000	50000

The Use of this Table is best made known by answering certain Questions. As for Example.

At 7 Shillings *per* Yard, Ell, Tun, &c. What will 90 Yards, Ells, Tuns, &c. amount to? Cast your Eye down the second Column marked 7 *Shillings*, and over against the Number 90 in the first Column you will find 31 *l.* 10 *s.* the Sum of the Total.

If I pay 31 *l.* 10 *s.* for 90 Yards, Ells, Tuns, &c. what is that *per* Yard, Ell, Tun, &c. Find the Number 90 in the first Column; then run your Eye on the transverse Column till you find the Sum 31 *l.* 10 *s.* over against which in the Head Column you will find 7 *s.* the Price for 1 Yard, Ell, &c.

At 9 *s.* 7 *d.* 3 *farthings* *per* Yard, Ell, &c. what will 140 Yards, Ells, &c. amount to? You will find 100 Yards at 9 *s.* *per* Yard will be

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	45	00	00
40 <i>yds.</i> at 9 <i>s.</i> <i>per</i> <i>yd.</i> is	18	00	00
100 <i>yds.</i> at 7 <i>d.</i> <i>per</i> <i>yd.</i> will be	02	18	04
40 <i>yds.</i> at that price is	01	03	04
100 <i>yds.</i> at 3 <i>farth.</i> <i>per</i> <i>yd.</i> is	00	06	03
40 <i>yds.</i> at that price will be	00	02	06

In all 67 10 05

FINIS.

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